

CENTRAL PATENTS INDEX CLASSIFIED ALERTING BULLETIN

WEEK D01
18 FEBRUARY 81
00001D - 00757D

ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

Section D:

FOOD
DETERGENTS

COUNTRY	PUB DATE(S)	NUMBER RANGE
BRAZIL	9 DEC 80	7,900,702 - 8,002,682
CZECHOSLOVAKIA	15 SEP 80	6,307,114 - 8,003,176
DENMARK	1 DEC 80	7,901,786 - 8,001,964
W.GERMANY		
-DAS	18 DEC 80	1,538,990 - 3,006,479
-OLS	18 DEC 80	2,902,016 - 3,022,576
FINLAND	28 NOV 80	7,803,938 - 8,002,811
UNITED KINGDOM	31 DEC 80	1,581,821 - 1,582,200 2,049,381 - 2,050,130
ITALY	20 OCT 80	1,047,501 - 1,048,000
JAPAN		
-Examined	27 NOV - 3 DEC 80	80,046,881 - 80,048,080
NORWAY	1 DEC 80	7,501,640 - 8,003,003
ROMANIA	JANUARY 80	59,162 - 73,954
UNITED STATES		
-Reissues	9 DEC 80	Re30,443 - Re30,444
-Patents	9 DEC 80	4,237,557 - 4,238,856

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany, Sweden and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.

Patentee Code		Main CPI Class for Section		Patent No	
Patentee Name	Other Classes	Latest Priority	Earliest Priority	Earliest Disclosure Basic Patent	IPC
Publication Date				Accession No	
MEDA-	A89	69369W/42	=US 3964-992		
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SE28.7.75)					
MEDAC GES KLINISCHE	11.10.74-DE-448552	(31.12.73-DE-365284)			
B04 J03 R16 (22.06.76) *FR2256-410	G01n-27/26				

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.



DERWENT PATENTS SERVICES

1981 INSTRUCTION CLASSES QUESTIONNAIRE

It is proposed to hold a series of centralised or localised instruction classes in the period from June to November 1981 at locations which will be determined according to demand. A minimum of 5 participants will be required for each class.

The classes that will be offered are as follows:

Elementary A Coding (IC2)	<i>A two day course for new users of CPI Section A codes, covering basic principles and discussion of examples. Max. 20 participants.</i>
Elementary BCE Coding (IC3)	<i>A two day course for new users of CPI Sections BC & E codes with special reference to the New Chemical Code, again with discussion of examples. Max. 20 participants.</i>
Advanced A Coding (IC4)	<i>A two day course for those with previous training and experience of the CPI Section A codes. Max. 20 participants.</i>
Advanced BCE Coding (IC5)	<i>A two day course for those with previous training and experience of CPI Sections BC & E codes, with special reference to the New Chemical Code and coverage of complex examples. Max. 20 participants.</i>
Online User Instruction and General Overview (IC6)	<i>A one day course giving in-depth treatment of all access points except special coding, together with formulation of strategy and "hands-on" experience. A general overview of Derwent and its Patents products will also be given. Max. 20 participants.</i>
Advanced Online Searching (IC7)	<i>A one day course demonstrating the use of special coding concepts and other search parameters in the formulation of search logic to retrieve specific subjects or chemical structures. Max. 10 participants.</i>

Cost per person for these classes is: IC2 through IC5 and IC7 £50 or \$120; IC6 £35 or \$85.

Subscribers wishing to participate in these classes are requested to complete the questionnaire overleaf and **return it to Derwent not later than 31st March 1981**. A schedule will then be drawn up following analysis of the replies.

Request for User Aids

Instruction Manuals (£5, \$12, ¥3000 each including postage).		No. sets required
No. 1	CPI/EPI GENERAL (INC ONLINE)
No. 2	CPI/WPI COMPANY/MANUAL CODES
No. 3	CPI CHEMICAL RETRIEVAL
No. 4	PLASDOC RETRIEVAL

Derwent Brochures (free of charge)	No. sets required
CPI
WPI
WPA
EPI
ONLINE

Type of Instruction Required

Number of Participants

Elementary A Coding (IC2)

Elementary BCE Coding (IC3)

Advanced A Coding (IC4)

Advanced BCE Coding (IC5)

Online User Instruction
and General Overview (IC6)

Advanced Online Searching (IC7)

Preferred Location(s)

Dates to be Avoided

Please write or type in BLOCK LETTERS

Your Name and Company

Name Position Department

Company

Address

Principal Contact Telephone Post Code

Signed Telex



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D1: FOOD; FERMENTATION

D11: BAKING

ME/ ★ D11 D/01 ★ CS 7904-138
 etic bakery prods. - contg. brewing malt
 HAMELA P 15.06.79-CS-004138
 (15.09.80) A21d-02/38

GG- ★ D11 00069 D/01 ★ DE 2923-577
 cooled flush fitting backing oven - with warm air outlet to kitchen
 outside (NL 15.12.80) (NL 15.12.80)
 GAGGENAU W HAUS & 11.06.79-DE-923577
 Q74 (18.12.80) A21b-01/26 F24c-07
 06.79 as 923577 (12pp39)
 built-in flush-to-wall baking oven with hot air circulation inside the
 baking space has air channels along the external oven walls. Cool air
 drawn in at the front top by a radial-flow fan at the rear. Its air
 outlet can be coupled to channels at the bottom of the oven and can
 be returned to the kitchen.
 By turning the air outlet through 180 degrees, it can be connected
 to a duct instead which discharges the warm air to the chimney or to
 the outside. An activated carbon or wire mesh filter cleans the
 cooling air.
 The same oven can thus be used for two different applications. In
 summer, when the warming effect of the warmed up cooling air is
 not desired, it is simple to direct it outside.

EMP/ D11 60023 T/38 = DS 2109-363
 conveyor control system - esp for dough portions in a rising/proving
 chamber
 KEMPER K (KEM) 27.02.71-DE-109363
 + Q35 (18.12.80) *NL7202-477 A21c-13/02
 02.71 as 109363 (9pp1045)
 carriers for portions of dough to be allowed to rise during their
 passage through a stove, are fixed rigidly to the hanging chains, and
 the stepping sequence of the carriers is determined by the dough
 portion dispensing unit, dependent upon the selected number of
 carriers which are to be loaded. The endless conveyor formed by the
 chains holding the dough carrying tubs is synchronised with the
 dough loading unit, so that the portions are deposited correctly.
 The design permits the careful handling of the largest possible
 number of portions in the smallest possible space. During transport
 they are turned over gently and the timing can be adjusted to suit the
 required throughput.

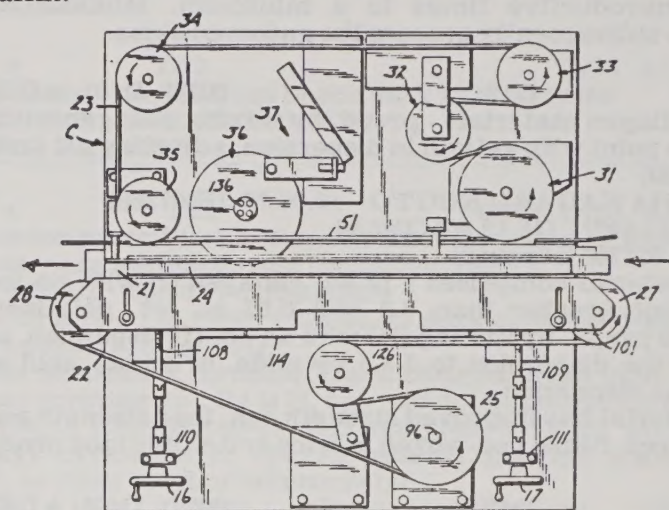
RR/ ★ D11 00365 D/01 ★ GB 2049-604
 ready rolled pastry package - pastry free of dusting flour between
 non-adherent plastic sheets and rolled into cylinder
 PARR T K 29.11.79-GB-041203 (17.05.79-GB-017186)
 A92 Q34 (31.12.80) A21d-08/08 B65d-85/72
 1.79 as 041203 (4pp1358)
 package comprises pastry sandwiched between two thin flexible
 non-toxic plastic sheets to which the pastry does not adhere, pref.
 polyethylene. The package is pref. rolled into cylindrical form and
 the sheet ends are twisted to prevent unrolling.
 There is pref. no dusting flour between pastry and sheets so that
 pastry quality on baking is not impaired, and the package is frozen.
 The pastry is ready for use immediately when unfrozen and does not
 need further rolling, so that a high-quality pastry can be used.

ITMU- ★ D11 00481 D/01 ★ US 4237-763
 Slicing muffins using rotating knife device - past which muffins are
 advanced by two conveyor belts also rotating muffins
 INT MULTIFOODS CORP 19.03.79-US-021640 (06.04.78-US-
 893925)
 P62 (09.12.80) A21c-15/04 B26d-03/30
 19.03.79 as 021640 (16pp295)

Muffin slicing appts. includes a horizontal surface along which the
 muffins are advanced by conveyor belts. The belts grip opposite
 sides of the muffin and pref. the belts move with different speeds to
 rotate the muffin as it is advanced. The muffin is carried through a
 slicing station where a rotating, horizontal knife extends into the
 path of the muffins.

Pref. one of the conveyor belts moves backwards to ensure that
 each muffin is rotated through 360 deg. while engaging the knife.
 Pref. the spacing between the belts may be adjusted to accept
 muffins of a different size.

The appts. provides a circumferential slit of adjustable depth in
 each muffin.



MENG/ D11 71988 Y/40 = US 4238-512
 Storable acid pre-doughs for baking bread etc. - by souring the dough
 with lactic or acid forming bacteria to the point of termination of
 bacterial activity

MENGGE W 08.10.76-DE-645457 (20.03.76-DE-611916)
 (09.12.80) *NL7703-058 + A21d-02/08 A21d-15
 27.04.79 as 034076 (+ 20.3.76-DE-611972) (17.3.77-US-778662) (5pp918)
 Naturally leavened dough(I) used in the prepn. of bread and pastries
 and capable of sustaining long periods of storage is prepd. by
 fermenting a cereal mash contg. a culture of isolated
 heterofermentative leavening dough bacteria to form lactic and
 acetic acid in the mash.

The fermentation is carried out for sufficient time to complete
 bacteriological metabolic activity so that the activity is inhibited
 sufficiently to have a self-preservative effect. Pref. the dough is then
 dried and packaged in air-tight containers. Pref. the bacteria is
 Lactobacillus brevis.

There is a redn. in the amt. of leavening required and (I) can be
 kept for long periods without adverse effect on taste or baking
 properties.

D12: MEAT; FISH PROCESSING

EH ★ D12 00045 D/01 ★ DE 2923-187
 selective netting for hollow sausage skin rods - anchored by prongs
 annular discs engaging in netting meshes
 HOECHST AG 08.06.79-DE-923187
 A97 Q34 (18.12.80) A22c-13 B65d-65/38
 06.79 as 923187 (13pp39)
 package made of cellulose hydrate and compressed to a
 elongated hollow rod for use on the filler tubes of sausage stuffing
 machines is supported by an outer netting, made of a elastomer such
 as VC, polyamide, polypropylene or, preferably, polyethylene.
 The open ends of the hollow rod, annular discs of the same width
 as the corrugations are held in position by turning over the netting

and folding it back over itself on the outside. The annular discs have
 radial prongs on the outside which act as tensioning anchors for the
 meshes of the netting.

Arrangement makes it impossible for the supporting sheath to
 change its fit around the hollow rod of corrugated skin and ensures a
 permanently stable shape for it.

FARH ★ D12 00046 D/01 ★ DE 2923-188
 Sausage skin support sleeve - made of specified plastics netting with
 ends turned over annular discs
 HOECHST AG 08.06.79-DE-923188
 A97 Q34 (18.12.80) A22c-13 B65d-65/38
 08.06.79 as 923188 (23pp39)

Synthetic sausage skin, usually made of cellulose hydrate or hoses of a polymer such as polyester or polyamide, are supplied and used in the form of hollow rods, produced by the hose compressed to a corrugated column. A hot forming operation puts the end sections into a permanent shape.

This sausage skin is folded to a hollow rod with corrugations and two open ends. A supporting sleeve consists of netting with folded-back ends which enclose annular discs at the face ends. The pref. material for the supporting sleeve is polyamide, PVC, polyethylene or polypropylene with heat shrinkage properties. The annular discs are made of similar plastics but esp. polyethylene.

KOLL/ ★ D12 00134 D/01 ★ DE 2924-059
Automatic sausage skin gathering machine - with turntable for two gathering tubes and four working stations
KOLLROSS G 15.06.79-DE-924059
(18.12.80) A22c-13/02

15.06.79 as 924059 (25pp39)

Machine for the automated axial gathering of synthetic skins for use in the mfr. of sausages has a turret with two axial gathering tubes which is turned intermittently through 180 degrees. During the gathering operation the turret remains stationary. Each gathering tube has an axially movable stop which can be moved back in controlled fashion during the gathering. The displacement of the turret is limited to that required by the gathering tube to be moved within the reach of the gathering tool.

Arrangement treats the delicate skin material very gently and reduces unproductive times to a minimum. Minimal appts. is required to subsequently process the gathered skins.

KURE ★ D12 00280 D/01 ★ DE 3021-780
Shaped collagen materials - prepd. by mixing collagen with specific isoelectric point with gelatin in dispersion, adjusting pH and shaping (NL 16.12.80)

KUREHA KAGAKU KOGYO 12.06.79-JP-073689
All F01 (A97) (18.12.80) C081-89

10.06.80 as 021780 (13pp952)

Shaped material comprises 1 pt.wt. collagen (I) with an isoelectric point at not greater than 6.2 and 0.05 pt. wt. gelatine(II). The material is prepd. by mixing (II) with an aq. (I) dispersion, adjusting the pH of the dispersion to 3-3.5 by addn. of an aq. acid soln. and shaping the dispersion.

The material has improved strength esp. tear strength and can be used in fibres, films, non-woven fabrics and edible food prods.

KURE ★ D12 00281 D/01 ★ DE 3021-781
Shaped collagen material prepn. - by pretreating collagen contg. skin with aldehyde to reduce isoelectric point

KUREHA KAGAKU KOGYO 12.06.79-JP-073690
All F01 (A97) (18.12.80) C081-89/06

10.06.80 as 021781 (9pp952)

Shaped collagen (I) materials are pretreated by contacting comminuted skin with an aldehyde (II) such that the isoelectric point of (I) in the skin is reduced to a pH less than 6.0. (II) is pref. formaldehyde, acetaldehyde, aerol, glyoxal, glutaraldehyde, dialdehyde-dextrin or dialdehyde-starch.

(I) has high tear strength and can be used for fibres, films, edible food prods. and non-woven fabrics.

ALEX- ★ D12 00319 D/01 ★ DS 2926-975
Meat cutter and mixer - with thyristorised speed control for cutter blade shaft

ALEXANDERWERK AG 04.07.79-DE-926975
X25 P41 (18.12.80) B02c-18/24

04.07.79 as 926975 (5pp39)

A meat cutter includes a bowl in the shape of half a toroid which is driven by a gear motor and a vertical shaft. A horizontal shaft driven by another motor carries a set of curved cutter blades which take up the section of the bowl. The horizontal shaft is driven through a V-belt by a d.c. shunt motor which is designed for forward and reverse operation and for an infinitely variable speed.

The preferred control system for the d.c. drive motor is a thyristorised rectifier with a chopper type of firing control for clockwise run, anticlockwise run and braking.

GRAM- ★ D12 00329 D/01 ★ GB 1581-859
Appts. for continuous drying of press cake - with paddles directing cake along partially re/entrant heated path

GRAMPEX PROTEIN LTD 30.04.77-GB-018162
Q76 (31.12.80) F26b-17/20

20.04.78 as ----- (8pp295)

Appts. for continuous treatment of comminuted or mashed material removes volatile liq. The appts. comprises a cylindrical casing with longitudinally spaced ports for entry and exit of material. A shaft is rotatable along the casing axis. Spaced paddles are mounted on the shaft, some of these being given different screw-pitch settings, selected so that rotation of the shaft causes material to be conveyed from the entry to the exit along a path. This has portions which are reentrant. Heaters consist of annular elements coaxial with and spaced along the axis, also spaced radially from both the shaft and

casing.

Appts. is partic. designed to treat press cake to form a dried in a continuous process for the mfr. of ground fishmeal.

UNIL D12 04174 A/03 = GB
Meat deboning process and machine - separates structurally meat pieces from bone gripped by power press plungers

UNILEVER NV 14.07.76-GB-029341
(31.12.80) *BE-856-786 A22c-17

13.07.77 as ----- (4pp931)

Meat is removed from bone by compressing the bone along longitudinal axis of a press, such that substantial pieces of bone move laterally w.r.t. the axis and the bone. The bone is severed within the press, and the bone-free structurally intact meat severed from the remaining bone and meat mass.

Pref. the severed meat is collected in an annular cooling chamber surrounding the press, which is in a close-fitting disposition for a shear tool. Relative movement of the chamber and the press causes the shearing of the meat to sever bone-free meat from the mass.

The meat obtd. in the process is of higher quality and having an intact structure w.r.t. meat degraded by comminution.

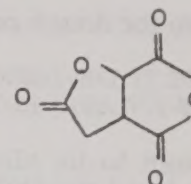
PFIZ D12 43040 U/31 = J80
Isocitric acid lactone - anhydride - for use as additive liberating acid esp for foodstuffs, partic meat

PFIZER CORP 23.12.71-GB-060034

E13 (02.12.80) *DE2262-473 C07d-493/04 + A231-01

22.12.72 as 136288 /79 Div.ex 128341/72 (3pp)

Title cpd. of formula (I) is slowly hydrolysed first to the lactone then to free acid. The liberation of the acid can be further delayed by coating particles of isocitric acid lactone-anhydride with an oil-soluble glyceride (animal or vegetable) solid at temps. up to 40 deg. hardened oil, or an edible salt of a fatty acid. This cpd. is prepd. by dehydrating cis-isocitric acid lactone with acetic anhydride (J55104865)



KIBU- D12 82885 A/46 = J80
Prepn. of fish paste food - by adding salt and water to minced meat, treating with high speed cutter, opt. adding seasoning and moulding and heating

KIBUN KK 18.03.77-JP-029229
(02.12.80) *J53115-851 A231-01/32

18.03.77 as 029229 (6pp5)

Method comprises adding common salt and water to minced meat, treating the mixt. for less than 15 mins. (pref. 6-10 mins.) with a high speed cutter so that the fall in the activity of Mg. ions does not exceed 30%, if required adding seasoning, starch, etc. to the mixt., moulding the mixture to desired form and heat-treating the mouldings.

Marine pasty foods such as boiled fish paste, which have firm soft texture and are excellent in taste and flavour can be prepared (J53115851)

CROA/ D12 63417 B/35 #US 4
Separating the cheek muscles of a pig's head - by clamping conveyor for wedge prising jaws open (NL 21.8.79)

CROASDELL D F 17.02.78-IE-000349 (28.06.79-US-052894)
(09.12.80) *DE2905-998 A22c-17

28.06.79 as 052894 (7pp1376)

Jowl muscles of a half pig's head are severed by advancing the head sideways on a conveyor such that a wedge is forced between the upper and lower jaws from the side to force the jaws apart and sever the muscles without separating the jaws.

Pref. the skin is removed previously. The conveyor provides locating and supporting devices.

Severing of the jowl muscles allows further processing of the heads.

LANG/ D12 36898 C/21 = US 4
Compression of meat in double chambered apparatus - with released juices between two chambers

LANGEN J C 03.11.78-US-957350
(09.12.80) *EP--10-780 + A22c-11/06

03.11.78 as 957350 (6pp1376)

Compression appts. consists of two press chambers which are sequentially operated to compress a product during which liq. is removed, and are connected so that liq. pressed from the press in one of the chambers is conveyed to the other chamber which is inoperative.

Pref. the chambers are at least partially defined by a common movable wall which moves to reduce the vol. of one chamber and increase the vol. of the other.

Loss of meat juice during meat pressing is reduced.

D12 66440 C/38 = US 4238-513
 emulsion fermentation in dry or semi-dry sausage mfr. - using
 culture concentrate inoculant of *Pediococcus pentosaceus*
UMARK INC 09.03.79-US-019241
 (09.12.80) *DE3008-650 + A23b-04/12 A23c-11
 as 019241 (4pp918)
 semi-dry sausages are produced in a method where a meat
 is inoculated and fermented with lactic acid producing
 organisms (I). *Pediococcus pentosaceus* ATCC 10791 is used as
 the form of a starter culture concentrate contg. 10 power 8-10
 13 cells/ml, 0.1-10% of the concentrate is added. Pref. the
 ntrate is freeze dried, frozen or a liq. stabilised concentrate
 fermentation is carried out until a pH below 5.0 is obtd. Pref.
 ntation occurs at 50-80 (esp. 60 -80) deg.F for less than 72 (esp.
 an 48) hrs..
 fermentation cycle can be controlled to produce desired
 characteristics in a short time with the growth of
 minating microorganisms being reduced.

PEDC- **D12** 65019 B/36 = US 4238-515
 Self-binding fibrous gluten for meat-like prods. - obtd. by agitating
 wheat gluten, reducing agent and inert solid
PEDCO PROTEINS & EN (SHEM) 22.02.78-IL-054096
 A97 (09.12.80) *EP---3-912 A23j-03
 15.02.79 as 012403 (4pp918)
 New form of gluten (I) contains an inert food material (II) in its
 matrix and has a net-like fibrous structure with less than 2 mm dia.
 fibres, a viscosity at least 50,000 cps. and self-binding properties. (I)
 is obtd. by agitating a mixt. of hydrated vital wheat gluten and a
 reducing agent at a temp. lower than 70 deg.C to form a softened net-
 like fibrous structure followed by the incorporation of the solid,
 inert, food material of particles less than 5 cm to get a ratio of
 gluten:inert food material of 1:0.1-10.
 Pref. (II) is textured vegetable protein (esp. rehydrated extruded
 soya). Pref. the reducing agent is tocopherol, ascorbic acid, or
 sodium sulphite or bisulphite. (I) is used in the mfr. of meat-like
 prods. which pref. also contain colouring agents, spices and fats.
 (I) can be used as a high quality meat analogue or as a raw
 material for mfg. processed meat prods. e.g. sausage, hamburger,
 meat spread corned beef, etc..

D13: OTHER FOODSTUFFS

E/ ★ **D13** **D/01 ★ CS 7704-923**
 obial rennet prepn.
EDEK M 25.07.77-CS-004923
 (15.09.80) A23c-23

E/ ★ **D13** **D/01 ★ CS 7706-005**
 ed dairy products prodn.
EDEK M 15.09.77-CS-006005
 (15.09.80) A23c-23

A/ ★ **D13** **D/01 ★ CS 7900-258**
 gically conserving bulky feeds - by means of microbiotic
 arations
MCAN P 11.01.79-CS-000258
 (15.09.80) B23k-03/02

3/ ★ **D13** **D/01 ★ CS 7901-567**
 essing of inulin-contg. foods
FEISSOVA V 08.03.79-CS-001567
 (15.09.80) A23l-01

M/ ★ **D13** **D/01 ★ CS 7903-692**
 -based feedstuff prodn.
ORMAN L 29.05.79-CS-003692
 (15.09.80) A23k-01/08

H/ ★ **D13** **D/01 ★ CS 7904-042**
 stuffs lowering chlorinated pesticides conc. in farm animals
ODHORSKY M 11.06.79-CS-004042
 (15.09.80) A23k-01/16

J/ ★ **D13** **D/01 ★ CS 7904-139**
 with medium based on beer malt - and having dietetic activity
ANULA P 15.06.79-CS-004139
 (15.09.80) A23l-01/10

V/ ★ **D13** **D/01 ★ CS 7904-881**
 rtraditional materials conversion into feedstuffs
RU F 12.07.79-CS-004881
 (15.09.80) A23n-17

M/ ★ **D13** **D/01 ★ CS 7905-751**
 al feedstuffs
YLMAR B 24.08.79-CS-005751
 (15.09.80) A23k-01/16

M/ ★ **D13** **D/01 ★ CS 7905-752**
 animals feedstuff prodn.
YLMAR B 24.08.79-CS-005752
 (15.09.80) A23k-01/16

E/ ★ **D13** **D/01 ★ CS 7906-144**
 et products prepn. from inorganic materials
EDEK M 11.09.79-CS-006144
 (15.09.80) C12n-09/56

A/ ★ **D13** **D/01 ★ CS 7906-403**
 ilcoholic, non-fermented beer-like drink
RANT J 22.09.79-CS-006403
 (15.09.80) C12g-03/08

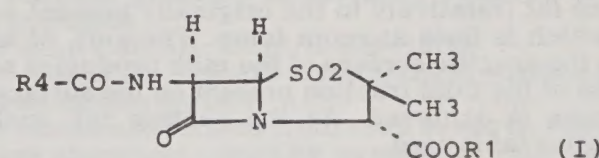
KRAM/ ★ **D13** **D/01 ★ CS 7908-575**
 Protein biomass prodn. from beech bark hydrolysates
KRAMAR A 10.12.79-CS-008575
 (15.09.80) A23k-01/12

FARB ★ **D13** **00056 D/01 ★ DE 2923-339**
 6-Acylamino-penicillin-1,1-di:oxide derivs. - useful as antibacterials,
 beta lactamase inhibitors and feed additives
BAYER AG 08.06.79-DE-923339
 B02 C02 E13 (18.12.80) A23k-01/17 A61k-31/43 C07d-499/44
 08.06.79 as 923339 (51pp1251)

Penicillin dioxides of formula (I) and their salts are new. In (I), R1 is
 H or ester-forming gp.; R4 is H, opt. substd. naphthyl the gps. R5.CX-
 , R6R7R8C-, R9R10R11C-or R12-acetylenyl5 is H, alkyl, alkoxy,
 cycloalkyl, cycloalkenyl, cycloalkadienyl, alkenyl, aralkyl (all opt.
 substd.), aryloxy, aryl or heterocyclyl.

R6 is halo, alkyl, alkoxy, cycloalkyl, cycloalkenyl,
 cycloalkadienyl, alkynyl, aralkyl, aralkoxy, naphthyl, amino or
 cycloalkoxy (all opt.substd.), heterocyclyl, sulpho or carboxy (or
 their functional derivs.), hydroxy or acyloxy; R7 and R8 are each H
 or opt. substd. alkyl or alkoxy, but not alkoxy if R6 is hydroxy or opt.
 substd.amino; R9 is opt. substd. phenyl; R10 is phenyl, alkoxy, alkyl,
 aralkyl, cycloalkyl, cycloalkenyl, cycloalkadienyl, alkenyl (all opt.
 substd.), acyloxy, sulpho or carboxy (opt. as functional derivs.),
 acyl, heterocyclyl or halo; R11 is H, opt. substd. amino R10, or R7
 plus R8, or R10 plus R11 together complete a membered carbocyclic
 or heterocyclic ring; R12 is H, opt. substd. alkyl or aryl; X is oxygen,
 -N or R14R15C13 is hydroxy, opt. substd. alkoxy or amino, or
 heterocyclyl; R14 and R15 are H, opt. substd. alkyl, aryl,
 heterocyclyl or carboxy (opt. as functional deriv.

(I) have antibacterial activity and can be used therapeutically or
 for preserving materials such as polymers, paper, wood, food or
 water. They are also inhibitors of beta-lactamase (more effective
 than known cpds. of similar structure) so can be used in human or
 veterinary medicine to improve the activity of other beta-lactamase
 antibiotics. (I) are also useful as animal feed additives.



MERK/ ★ **D13** **00128 D/01 ★ DE 2924-002**
 Bird feed block e.g. bar or rod - contg. water glass binder bonding
 bird-grains and nutrient additives
MERKLA 13.06.79-DE-924002
 C03 (18.12.80) A23k-01/18
 13.06.79 as 924002 (14pp200)

Bind-feed block consists of bind grains and additives, e.g. vitamins,
 minerals and trace elements, bonded to one another with a water
 glass binder, pref. of Na- and/or K water glass.

The water glass binder strongly bonds the bind-feed block, yet the
 binds can pick the grains with their beaks.

ENEA/ ★ D13 00165 D/01 ★ DE 2924-242
Non-alcoholic fresh milk ultrafiltration permeate drink - pref. contg. added lactose concentrate obtd. by reverse osmosis of permeate parts

ENEAL 15.06.79-DE-924242
(18.12.80) A23c-09/14

15.06.79 as 924242 (5pp200)

Refreshing non-alcoholic drink consists entirely or almost entirely of a permeate produced from fresh whole- or skim milk by ultrafiltration.

Prepn. of a natural, healthy beverage finds a new economic use for increasing milk prodn. The first ultra-filtration yields a casein concentrate for cheese prodn. Further reverse osmosis of permeate yields a lactose concentrate which enriches the permeate.

NIPQ ★ D13 00213 D/01 ★ DE 3008-313
Semi-processed, room temp. packed storable chip prepn. - comprises partial pre-drying to given water content before packing and sterilising

DAI NIPPON INSATSU 04.06.79-JP-068845
(18.12.80) A23l-01/21

04.03.80 as 008313 (19pp200)

Semi-processed potato pieces, e.g. chips, contg. 61-72wt.% moisture are hermetically sealed in a bag of gas-tight, opaque-material, pref. a laminate of thermoplastic film and Al foil. The chips are prepd. by washing, peeling and cutting raw potatoes, pre-drying the chips, packing in gas-tight, opaque foil bags, hermetically sealing and heat-sterilising.

The packed chips can be stored at room temp., e.g. for 6 months, and are ready for use by frying in an oil-bath.

ROQF ★ D13 00278 D/01 ★ DE 3021-775
Stable sugarless chewing-gum not causing dental caries - comprises hydrogenated starch hydrolysate plasticiser having high maltitol and low higher poly:ol content (NL 17.12.80)

ROQUETTE FRERES SA 15.06.79-FR-015479
A97 (18.12.80) A23g-03/30

10.06.80 as 021775 (22pp200)

In sugarless chewing-gum consisting of gum, aq. plasticiser and one or more solid sweeteners, esp. mannitol, the aq. plasticiser consists, at least partly, of a hydrogenated starch hydrolysate contg., by wt., under 3 (under 1.5%) polyols having degree of polymerisation (DP) over 20, under 60 (45-60) esp. 50-53% maltitol (DP2), under 19 (0.3-14) esp. 4-14% sorbitol (DP1), balance to 100% polyol mixt. having DP 3-20. The hydrolysate content of the final chewing-gum is 3-35 (10-30) wt.%. Mannitol content decreases with increasing hydrolysate content.

The chewing-gum comprises bubble gum and gum having an inner heart. Hydrogenated starch hydrolysate addn. strongly increases sweetening capacity, improves plasticity, perfume and aroma retention, stability to the caries-causing acidifying activity of bacteria in mouth and partic. storage stability, allowing mannitol content reduction and even omission.

NIRO D13 23267 T/15 = DS 2147-153
Treatment of milk powder with lecithin - to improve solubility in cold water

NIRO ATOMIZER A/S 25.09.70-DK-004920
(18.12.80) *DE2147-153 A23c-09/16

21.09.71 as 147153 (9pp1045)

The quantity of the starting prod. comprising a full milk powder, the capacity of which, to become wetted by cold water, is to be improved, and the amt. of coating material, are selected so that the final free surface fat together with lecithin, amts. to 1-3 wt.%.

The lecithin is applied in quantities of 15-25 wt.% of the portion of the free surface fat (relatively to the originally present surface fat and coating) which is fluid at room temp. The amt. of fat applied with regard to the specific surface of the milk product is selected so that a thickness of the fluid fraction present on the surface, of more than 0.1 microns is achieved. As the coating fat, melted, non-fractionated butter fat is used.

The powder agglomerates have a particle size of more than 100 microns and the coating with lecithin dissolved in fat is carried out at 50 deg.C., with the certain result that the capacity for wetting with cold water is raised to a very high degree.

WALD- D13 44284 A/25 = DS 2656-659
Cheese press with rotary cage - has rams in rows spaced round cage axis with moulds on periphery

WALDNER H & CO GMBH 14.12.76-DE-656659
P13 (18.12.80) *DE2656-659 A01j-25/15

14.12.76 as 656659 (7pp1045)

A cheese press has a basket which is rotated on its horizontal long axis, and carries rows of piston-cylinder units parallel to the same axis. Each of these has a pressing punch and a receiver for a detachable press mould.

There are at least three rows of piston units spaced out uniformly around the long axis, the punches of which act radially outwards, and the receivers for the moulds are positioned internally around the circumference of the basket. The machine works efficiently,

occupying the min. of space.

DOUG/ D13 04723 A/03 = G
Edible fibrous cellulose coated with edible gum - as low cal for foods and pharmaceuticals

DOUGLAS D 25.02.77-US-772101 (30.06.76-US-701147)
A97 B07 (31.12.80) *DE2729-370 A23l-01/34

24.06.77 as 026666 (9pp931)

Low calorie edible material comprises fibrous cellulose of fibre length 75 microns or less. The fibres are coated with a contg. 2-15wt.% of water-soluble edible gum (the wt. bel cellulose).

Pref. the gum is sodium carboxymethylcellulose, Gu xanthan gum, locust bean gum or an alginate. The coating comprises 2-12 pts. wt. of glycerol, sorbitol, propylene glyce mannitol.

The edible material is prepd. as a stable aq. dispersion, a paste, and may contain additional emulsifiers, flavouring food-texturising agents and colouring agents.

NEST D13 76250 A/43 = GB
Milk food used esp. for premature infants - contg. mix protein, carbohydrate, etc. in specified amts.

SOC PROD NESTLE SA 27.04.77-CH-005216
(31.12.80) *BE-865-080 A23c-11

04.04.78 as 013112 (6pp931)

A food prod. for babies of low birth wt., (esp. premature) comprises (per 100 pts. wt. when dry) 21-27 pts. wt. of lipids, 1 wt. of 1 or more protein, 50-63 pts. wt. of lactose and glucos 1.5-2 pts. wt. of 1 or more mineral salts, and 1-3 pts. wt. of w lipids comprise lactic fat, vegetable fat, and 30-50wt.% of chain glycerides w.r.t. the fat mixt., 50 wt.% or more of the are soluble.

Pref. the prod. is prepd. by clarifying fresh milk, standard by adding lactic fat, and adding a mixt. of non-lact pasteurising, concentrating, homogenising and cooling th obtd.; adding demineralised whey and 1 or more non-de soluble ultrafiltered whey protein; preheating the mixt. and to avoid protein denaturation; and mixing the dried powde obtd. with anhydrous glucose and processing in the absence o

BEAF D13 21993 B/11 #GB
Stabiliser, thickening agent etc. for food - consists proteinaceous colloidal whey ppte. prepd. by increasing pH and heating

BEATRICE FOODS CO 24.07.75-US-598873 (15.05.78-GB- (31.12.80) *US4143-174 A23c-21 A23l-01 A23l-02 + A61k-07

15.05.78 as 019653 (9pp931)

A food or food-grade compsn. comprises a food(-grade) mate a modifying amt. of a food modifier such that the characteristics of the material are changed.

Improvement is that the modifier is a non-proteinaceous colloidal complex ppte. from deproteinated whey of particle than 10 microns when in aq. suspension. The modifier is colour, exhibits no disagreeable taste in suspensions of 30w less, and can be dried to a free-flowing powder which is cag gelling water and petroleum ether.

The compsn. may esp. be used in foodstuffs, pharm carriers, cosmetics (lipsticks, face-creams and bases), toot and mouthwashes.

BADI D13 12264 A/07 = GB
Electrochemical prepn. of symmetric carotenoid(s) - by o dimerisation of phosphonium salts

BASF AG 09.08.76-DE-635802

B05 C03 E24 (D21) (31.12.80) *BE-857-607 C07c-175 C25b-0

08.08.77 as 033094 (6pp974)

Symmetrical carotenoids are mfrd from the phosphonium their molecular halves. by oxidising the salts electrochemic solvent and in the presence of a base. This causes the m halves to dimerisewith the elimination of substd phosphine o

Pref. the prod. is a carotene with a hydrocarbon structur oxidized deriv., built up of 8 isoprene units so that the two methyl gps are 1,6-to each other and the remaining non-t methyl gps. are each 1,5- to the adjacent central methyl gp. solvent is water.

Process uses easily available starting materials and gives yield.

SPIE/ D13 72762 A/41 = GB
Appts. for mfr. of yoghurt, esp. in the home - having el circuit for very close control of incubating temp.

ST-PIERRE R 18.04.77-CA-276402

P13 (31.12.80) *BE-865-753 A23c-09/12

29.03.78 as 012888 (7pp1376)

Yogurt-making appts has a double walled container, a heat space between the walls and connected to outer lower surfac inner wall, and a controller to keep the temp within + -0.5 d the desired temp. The heater consists of heating elements a to a heat absorbing foil and spaced by separators. A heat re

covers the elements and a regulator which protects the elements from overheating to conc. the heat on the heat-absorbing foil. A maximum quantity of culture is produced in the min time.

F. ★ D13 00360 D/01 ★ GB 2049-537
 nation of filled food products - with outer casing by applying pressure to filling sandwiched between two edible sheets e.g. of
ET FRESH FOODS LTD 26.02.80-NZ-192976 (21.04.79-NZ-88979)
 1.12.80) A23p-01 B29c-17
 1.80 as 013101 (11pp295)

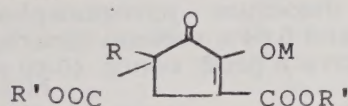
Foodstuff is made by sandwiching a filling between layers of flexible sheet material. Gas is evacuated from around the sheet and sheet material, and is then introduced to compress the layers of sheet material towards each other and about the filling. The appts. used includes a surface for supporting the lower layer and valves for introducing the compression gases. Prefabricated bladders are used to contain and direct the gas used for compression.

ON D13 55429 A/31 = J8 0047-060
 Purificn. of aq. anthocyanin solns. - by adsorption with metal (s) coated with styrene polymer film and elution (BE 24.7.78)
PHONE-POULENC INDUSTRIES 24.01.77-FR-001890
 1.97 E23 (A12 D16) (27.11.80) *DE2802-789 C09b-61
 1.78 as 005867 (6pp4)

Anthocyanine solns. are purified by treatment with an adsorption agent comprising a metal oxide coated with a film of a styrene polymer. The adsorbent is then sepd. and treated with an elution agent. Used for selective adsorption of anthocyanines from a mixt. of sugars, pectins, gums, organic acids and polyphenols, e.g. as obtained from wine prodn. The anthocyanines are red or blue dyes suitable for the food industry, e.g. milk products, bakery products, drinks, meat products, etc. The very pure extracts can be easily converted into the dry products. (J53111331).

LA D13 80358 Y/45 = J8 0047-623
 Prepn. of cyclopentenone alkali metal salt prepn. - by e.g., reacting (II)-alkoxyalkyl-carboxylic acid ester with acrylic acid ester in presence of basic alkali metal cpd.
ORAY IND INC 26.03.76-JP-032413
 1.12 (01.12.80) *J52116-439 A61k-07/46 C07c-67 C07c-69/75
 1.76 as 032413 (6pp62)

Alkali metal salt of 2-hydroxy-3,5-dicarboalkoxy-5-alkyl -2-cyclopenten-1-one of formula (I) are used as food flavourants. They are prepd. by reacting alpha-alkoxyalkyl-carboxylic acid ester of formula (II) R-(R'OOC)CH-COOR', with an acrylic acid ester of formula CH2=CHCOOR' where R is alkyl R' is an ester residue and M is an alkali metal in a polar aprotic solvent in the presence of strongly basic alkali metal cpd. or by reacting carboxylic acid ester formula RCH2COOR' with oxalic acid diester formula (V) R'OOC-COOR'd according to the system.



Ref. the polar aprotic solvent is dimethyl formamide, dimethylsulphoxide, dimethylacetamide, sulpholane, etc. and has a dielectric moment of at least 15. Strongly basic alkali metal cpd. is alkali metal hydride, alkali metal amide or alkali metal alkoxide. (J16439).

LA D13 81494 Y/46 = J8 0047-624
 Removal of amino acid prods. - uses chelating resins with amino acid salt gps.
ORAY IND INC 27.04.76-JP-047242
 1.91 E16 (01.12.80) *DE2718-649 C07c-99/12 C07c-101/02
 1.76 as 047242 (6pp-)

Chelating resins remove metals from amino-acid solns. containing one or more metallic ions. The resin carboxyl anion gps. are neutralised by basic amino-acid cations +) e.g. NR(2-m) (CH2)n.CO.OH +) m where R is alkyl m is 1-2, and n is 1-4. The (AH+) amino-acid is also present in the amino-acid soln. to be purified. Used for purifying amino-acid prods. for foodstuffs from metals originating from raw materials, containers, or added as enzyme growth promoters. The chelating activity of the resins is higher than that of those already in use. The amino-acid prod. yield is greater, less resin is on the resin and less resin is needed. The process is effective at higher concs. (e.g. 20-30%) of amino-acid. There is no contamination of the prod. with alkali or NH4 ions from the chelating resin. (J52131522).

D13 88316 B/49 = J8 0047-866
 Chewing gum, coloured by phycocyanine - obtd. by extn. of Spirulina
OTTE KK 17.04.78-JP-044140
 1.23 (02.12.80) *J54138-156 A23g-03/30

17.04.78 as 044140 (4pp22)

Phycocyanine or phycocyanin compsn. is incorporated into chewing gum (base) to colour it clear blue.

The phycocyanin can be obtd. by extn. of spirulina, e.g. Spirulina platensis, Spirulina maxima, Spirulina geitleri, Spirulina mafer, Spirulina princeps, Spirulina laxissima, Spirulina autilissima, Spirulina caldaria, Spirulina cufta, Spirulina spirulinoides, etc. The amt. of the colouring agent used is 2-5 g per kg. of the gum base. The colouring agent may be used in powder or soln. of concn. 30-60%.

Glucose or other sugar, sodium citrate, sodium dihydrogen phosphate or other alkali salt, may also be incorporated in the base. (J54138156)

TAKE/ ★ D13 00445 D/01 ★ J8 0047-869
 Storage stable brine compsn. - comprising brine mixed with leek
TAKEUCHI M 04.07.77-JP-080220
 (02.12.80) A231-01/16
 04.07.77 as 080220 (2pp22)
 Brine is mixed with leek. The brine compsn. can be stored for a long period of time without degradation. No bad smell is found, it has good flavour and noodles treated with it have good flavour and good taste. (J54014537).

SAOK D13 28866 B/15 = J8 0047-871
 Purificn. of Stevia sweetening agents - by contacting with non-polar synthetic adsorbent, eluting and treating with calcium hydroxide followed by ion exchange treatment
SANYO KOKUSAKU PULP 08.08.77-JP-094242
 B03 E13 (02.12.80) *J54030-199 A231-01/22 + C07h-01/08
 08.08.77 as 094242 (6pp104)

Stevia sweetening materials are purified by (i) contacting with non-polar synthetic adsorbent an extract of stevia sweetening materials consisting of stevioside, rebaudioside A and their analogs extracted from leaves of Stevia rebaudiana with water or hot water, (ii) eluting with organic solvent or hydrous organic solvent and recovering the stevia sweetening material adsorbed on the adsorbent, (iii) treating the eluate with calcium hydroxide to remove impurities and treating the prod. with cation exchange resin and anion exchange resin for purification.

Various disadvantages known methods are overcome by treating the eluate of stevioside with calcium hydroxide and treating with a small amt. of ion exchange resin. (J54030199)

AJIN D13 88571 A/49 = J8 0047-877
 Di:sodium 5'-guanylate and di:sodium 5'-inosinate mixed crystal prepn. - by crystallising from aq. soln. until desired guanylate to inosinate ratio is obtd.

AJINOMOTO KK 01.04.77-JP-037029
 E12 (02.12.80) *J53124-686 C07h-19/20 + C12p-19/32
 01.04.77 as 037029 (2pp5)

Prepn. of mixed crystal of disodium 5'-guanylate (GMP.2Na) and disodium inosinate (IMP.2Na) having the proportion of GMP/IMP equal to 1, is effected by crystallisation of an aq. soln. of GMP.2Na and IMP.2Na with the proportion 1.2-2.6 until the proportion reaches the specific value which is less than 4 decided from the proportion of the starting soln.

The mixed crystal has higher IMP.2Na proportion i.e. lower proportion than that of the aq. soln. and with crystallisation the proportion of GMP.2Na in the aq. soln. gets higher. Thus at the final stage of the crystallisation mixed crystal having high GMP.2Na proportion is obtd. Thus it is necessary to stop the crystallisation at the required stage. (J53124686)

ALFA D13 64736 B/36 = US 4237-781
 Gravity pressure extrusion to mfr. blocks of cheese from curds - under vacuum pressure temporarily relieved to prevent sticking during extrusion

ALFA-LAVAL AB 20.04.78-GB-015749
 P13 (09.12.80) *BE-875-724 A01j-25/11 + A23c-19/02
 10.04.79 as 028803 (7pp1376)

Cheese blocks are formed from curd in appts. which includes upper and lower chambers joined by an opening which may be closed by a guillotine blade, and a hollow column extending from the opening into the upper chamber and being apertured near its base.

Curd is supplied to the column with the upper chamber at sub-atmospheric pressure, whey is extracted through the apertures, the curd pillar is lowered by withdrawing the blade, and then cut by advancing the blade.

As the pillar is lowered air is admitted to the upper chamber to laterally compress the pillar. Cheese blocks can be continuously produced.

MULL/ D13 72772 Y/41 = US 4237-820
 Feeding artificially grown fish - with water insoluble, suspended fishfood pellets

MULLER H 24.03.76-CH-003706
 C03 P14 (09.12.80) *DE2711-485 A01k-61/02
 21.06.78 as 920374 (+ 22.3.77-US-780250) (7pp1376)

Fish feeding appts. consists of a funnel, a cup vertically above the funnel, and a conduit extending between. In use the appts. is

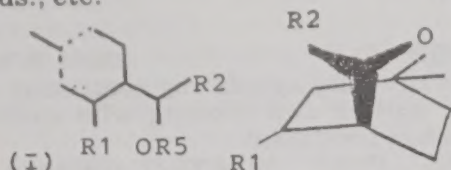
submerged in a fish tank and becomes filled with water. Pref. water is forced by air injection through the food to keep it floating.
Amt. of food wasted is reduced.

INFL ★ D13 00610 D/01 ★US 4238-344
Aroma additives for solid or liq. detergents - comprising 2-oxa-bi:cyclo-(2.2.2.)-octane derivs. and cyclohexene alk(en)yl carbinol(s) and ester(s)

INT FLAVORS & FRAGR INC 07.06.79-US-046364 (20.10.78-US-953128)
B05 E19 (D18 D21 D23) (09.12.80) C11d-03/50 C11d-09/44
07.06.79 as 046364 Div.ex. 4195099 (47pp513)

A solid or liq. detergent has its aroma augmented or enhanced by addn. of at least one cyclic cpd. (I) or (II) in which R1 is H or methyl; R2 is 3-5C alkyl or alkenyl; and R5 is H or 1-4C acyl. One of the dashed lines is a carbon-carbon single bond and the other is a carbon-carbon double bond. The oxabicyclo-octanes (II) and the cyclohexene alk(en)yl carbinols and esters (I) provide a range of herb-like, fruit-like, tobacco-like and woody aromas.

(I) and (II) may also be incorporated as aroma and flavour enhancers and augmenters in foodstuffs, toothpaste, tobacco, medicinal prods., etc.



PFIZ ★ D13 00637 D/01 ★US 4238-392
Purificn. of L-aspartyl-L-phenylalanine alkyl ester sweeteners - by mixing with aq. alkali metal periodate

PFIZER INC 29.10.79-US-089640
B05 E14 (E16) (09.12.80) C07c-103/52
29.10.79 as 089640 (4pp916)

L-aspartyl-L-phenylalanine (1-3C) alkyl esters (I) formed by reacting L-aspartic acid N-thiocarboxyanhydride with a L-phenylalanine alkyl ester is purified from malodorous by products by contacting with an aq. soln. of an alkali metal periodate at pH 2 to 6 and at a temp. of 0 to 50 deg.C. The soln. may also contain sodium or potassium chlorate and/or 5 to 15 percent activated carbon.

(I) are artificial sweeteners.

LIFE- ★ D13 00666 D/01 ★US 4238-475
Chewing gum contg. insoluble, particulate pharmaceuticals - coated with e.g. gum arabic to facilitate release

LIFE SAVERS INC 01.08.79-US-062861
A96 B07 (09.12.80) A23g-03/30 A61k-09/68
01.08.79 as 062861 (11pp1251)

Chewing gum which when chewed releases finely-divided, water-insoluble therapeutic agents (I) comprises (A) a water-soluble phase consisting of softener, and (I) coated with a water-soluble material (II) to facilitate release of (I) and prevent its resorption by the gum base, and (B) a water-soluble phase consisting of separate, suspended and dispersed masses of gum base.

(II) is a dextrin, gum tragacanth gelatin, pectin, carboxymethyl cellulose, alginate or other hydrocolloid, esp. gum arabic, and the pref. wt. ratio (II):(I) is 1:2-4. (I) is e.g. magnesium or aluminium hydroxides, CaCO₃, nystatin, fat-soluble vitamins, antibiotics, propranolol, nadolol or esp. dicalcium phosphate (Ia).

Opt. sweeteners are included in both phases and the pref. softeners are sorbitol or maltitol syrups, xylitol, corn syrup, or hydrogenated starch hydrolysate.

(I) is efficiently and continuously released e.g. 75% is released over 5-10min. The bitter taste of some (I), e.g. nystatin, is effectively masked and the gum remains sweet for a long time.

MATS/ D13 66547 B/37 = US 4238-479
Foodstuff with strengthening effect - contg. Paramaecium aq. extract in a carrier, e.g. lactose or royal jelly

MATSUBARA M (MORI) 24.02.78-JP-020720
B04 (09.12.80) *DE2905-669 A61k-35/12
07.02.79 as 010050 (5pp945)

Nutritional deficiency in humans is treated by oral admin. of an orally ingestible nutrient compsn. comprising a small amt. of substance (I) obtd. by extn. of Paramaecium with water or aq. soln. and a large amt. of carrier. Total of (I) injected is up to 50 (pref. 10) mg per day.

(I) may be a dried extract of Paramaecium and pref. consists of a major amt. of lower mol.wt. portion and a minor amt. of higher mol.wt. portion sepd. from the extract. The compsn. pref. also contains cyclodextrin, partic. in beta form, with which (I) can form a clathrate cpd. The carrier is e.g. lactose or royal jelly.

LIFE- ★ D13 00681 D/01 ★US 4238-510
Sugarless coating for candy, chewing gum and pills - based on sorbitol with binders, film-forming agents etc.

LIFE SAVERS INC 21.02.79-US-012999
(09.12.80) A23g-03/30
21.02.79 as 012999 (6pp955)

A sugarless coating for candy, chewing gum or pills or tablets based on crystalline sorbitol, opt. mixed with mannitol or hydrogenated starch hydrolysate. It contains 45-90% sorbitol.

It pref. also contains a film-forming agent, esp. methylcellulose, hydroxypropylcellulose, ethylcellulose, hydroxyethylcellulose or carboxymethylcellulose, a binder e.g. arabic, xanthan gum, gum tragacanth, tapioca dextrin or modified food starch and opt. dispersing agents esp. titanium dioxide anti-sticking agents e.g. calcium carbonate, talc, or magnesium trisilicate.

The coating has a good appearance, and good flavour release through and chew props. It need not contain xylitol.

GENO ★ D13 00682 D/01 ★US 4238-511
Puffed Nato rice prepn. - includes addn. of dried torula yeast to prevent clumping

GENERAL FOODS CORP 15.06.79-US-048968
(D16) (09.12.80) A23l-01/18

15.06.79 as 048968 (4pp955)

In the prodn. of a puffed prod. from cooked and tempered Nato the rice is mixed prior to cooking with dried torula yeast in sufficient amts. to reduce the tendency of the cooked rice to clump and together.

The torula yeast is pref. spray dried. 0.25-5.0, esp. about 1 wt. the yeast is used, based on wt. of rice. The yeast and rice are mixed before cooking.

KREU- D13 34167 X/19 = US 4238-512
Tempering masses containing cocoa butter, such as chocolate give shine, resistance to heat and crystalline bloom

KREUCOHA AG 24.10.74-DE-450515
(09.12.80) *DE2450-515 A23g-01

24.10.75 as 625748 (14pp918)

Pre-crystallising chocolate contg. meltable cocoa butter facilitates releasing latent heat on crystallisation comprises (a) determining temp. at which (I) melts; (b) slowly cooling the mass to a temp. sufficient to initiate pre-crystallisation; (c) sensing during cooling redn. in the cooling rate due to the release of latent heat; (d) crystallisation and terminating cooling in response to this; (e) reheating the mass to a temp. at which pre-crystallisation is complete and further processing can occur.

The time at which cooling is terminated is accurately determined and the process can be automatic. Method is convenient and reliable.

SIMP- ★ D13 00683 D/01 ★US 4238-513
Frozen fried chips which can be heated in oven or toaster - based on potato with binders and cellulose

SIMPLOT JR CO 11.12.78-US-967960
(09.12.80) A23l-01/21

11.12.78 as 967960 (4pp955)

Frozen fried chips which can be heated in an oven or toaster are prepd. from a dough contg. 45-70% cooked mashed potato, 15% added water, 0.7-3.6% binder, 0.2-1.0% cellulose contg. a substantial amt. of microcrystalline cellulose, 10-30% dried potato flake granules, 0.05-0.2% disodium pyrophosphate, 0-3% sodium aluminium phosphate and 0.04% sodium bicarbonate. The dough is fried in cooking oil to give a prod. contg. 40-60 wt.% water and wt.% cooking oil.

The prod. is easily reheated, but closely duplicates the flavour and texture of conventional chips. The pieces do not blister or collapse during cooking or handling.

LAFO D13 49152 Y/28 = US 4238-514
Prepn. of stable red dyestuff from beetroot - by extraction, absorption on a column, elution and complex formation

LAB LAFON L 07.10.75-GB-041067 (28.04.78-US-900995)
A97 B07 E24 P85 (09.12.80) *FR2327-292 + A23l-01/27

28.04.78 as 900995 (4pp963)

Prepn. of a stabilised betanidine pigment compsn. comprises adding to an aq. soln. of a material betanidine (I) or (I)-contg. Beta vulgaris extracts, as stabiliser, 1-2 pts.wt. of an acid polysaccharide (II) of pt.wt. of material.

Soln. is then pref. evaporated to give stabilised powder compsn. (II) is pref. pectic acid. In sepn. of the pigment, the initial extract from the beetroot is generally treated e.g. with ion exchange resin before processing as above.

The beetroot pigment of purplish-red colour may be used in food and pharmaceutical industries.

STAU D13 46668 C/27 = US 4238-515
Egg albumen extender - comprising protein contg. compsn. of low mol. wt. and low fat content, mixed with gelatin or gum and whipping aid

STAUFFER CHEMICAL CO 18.12.78-US-970688
(09.12.80) *EP-12-490 A23j-03/02

18.12.78 as 970688 (9pp918)

Egg albumen extender comprises at least 65% protein compsn. (I) derived from plant or animal sources. (I) has a molecular weight less than 20000, Kjeldahl N content 0.45-2.1% (with at least 60% protein).

protein origin) fat content less than 0.25% and 1-15% gelatin, opt. 0.25% water soluble polyphosphate, the total amt. of gelatin and phosphate is less than 35%. (I) also contains 0.5-5% gum, and 0-30% binding aid.

and can be used as extenders in meringues, nougat, divinity and yellow, or sponge cakes.

★ D13 00684 D/01 ★US 4238-520
fat spread esp. margarine substitute - contg. low melting fat, emulsifier, water-soluble thickener and water
M CORP 28.06.79-US-053044 (01.08.78-US-930037)
(09.12.80) A23d-03 A23d-05
79 as 053044 (8pp955)

fat spread contains fat, an oil-soluble or dispersible lipoidal emulsifier, having a plastic consistency, a capillary melting pt. less than 135 deg.F and HLB not more than 5, a water-soluble or dispersible thickening agent having surface-active properties, and water. The compsn. contains 20-40% low m.pt. fat, having Wiley melting point 75-106 deg.F and solid fat index at 100 deg.F about zero. The proportions are such that the compsn. has a plastic consistency and Brookfield viscosity of at least 100,000 cps. through a temp. range of 100-130 deg.F.

The compsn. has a low calorific value, but has the appearance, colour and mouthfeel of conventional margarine, and melts down in the same way when applied to hot food. It is storage stable and does not separate.

★ D13 00685 D/01 ★US 4238-521
penicillin removal from contaminated milk - by contact with activated charcoal

GENICILLIN ASSAYS 18.09.79-US-076600
(09.12.80) A23c-09/15

79 as 076600 (6pp476)

penicillin contaminating a milk compsn. is removed by contacting the compsn. with activated charcoal and then recovering the penicillin-free compsn.

This also refers to the removal of other antibiotics by the same method.

The process is partic. useful for removing penicillin G.

★ D13 00706 D/01 ★US 4238-566
xanthine oxidase-active enzyme concentrate - prepd. from raw milk, useful in clinical and industrial research

UNIV OF DELAWARE 21.01.80-US-114047 (15.06.77-US-806736)
(09.12.80) C12n-09/02

80 as 114047 Div ex 4172754 (+ 23.2.79-US-014338) (9pp985)

enzyme concentrate has (i) an ave. protein to flavin ratio measured by E(280 nm) for protein and E(450nm) for flavin) of 2-4.1,

(ii) one symmetric peak by ion-exchange gel chromatography; (iii) a single protein band by polyacrylamide disc gel electrophoresis; and (iv) a pH profile curve, at approx. optimum temp., of the change in initial velocity of uric acid productivity against change in pH which shows 2 peaks, one at pH 8.3 and the other at pH 8.7.

Milk xanthine oxidase has a low specificity for substrates and electron acceptors. It catalyses the oxidn. of many purines, pteridines, aldehydes and other heterocyclic cpds. by electron acceptors such as O₂, NADH, dyes, ferricyanide and cytochrome C. Its presence in excess or absence, its inhibitor or stimulation reflects on the biochemistry of normal and abnormal cells e.g. uric acid prodn. and development of atherosclerosis.

INRG D13 89622 A/50 = US 4238-567
Nutritional protein prodn. from *Trichoderma album* - by culture on oxygenated liq. medium

INST NAT RECH AGRON 07.06.77-FR-017449

C03 + P13 (D16) (09.12.80) *BE-867-834 + C12n-01/22

02.06.78 as 912017 (15pp954)

Prodn. of food proteins comprises cultivating the fungus *Trichoderma Album* (I-032) in liq. nutrient made at below 28 deg. C, while maintaining a pH of 3.7-4.8, with stirring but without causing lysis of the fungus and avoiding foaming. The N-content of the media is adjusted to 4.5% w.r.t. dry material and the dissolved O₂ content is 6-10 mg per l.

The cultivation is carried out such that multiplication is negligible. A fermentation appts. for the prodn. is also described. Pref. the nutrient media is derived from agricultural prods., agroalimentary industry rejects or protein substrate

★ D13 00728 D/01 ★US 4238-604
Acetylated crosslinked starch prepn. - involves washing prod. to ash content less than 0.2 per cent to minimise acetyl odours and flavours

GENERAL FOODS CORP 06.10.78-US-949177

A11 (A97) (09.12.80) C08b-31/02

06.10.78 as 949177 (4pp914)

Prepn. comprises (i) crosslinking and acetylating starch to an acetyl substn. of not more than 2.5%, (ii) washing the prod. to reduce the ash content to below 0.20%, and (iii) drying the starch.

Pref. a slurry of the acetylated crosslinked starch is formed prior to drying, and the pH of the slurry is adjusted to 7.0-9.0. Pref. the acetyl substn. of the starch is not more than 2.4%, esp. 2.1-2.4%, and the ash content is below 0.15%.

The process is esp. for the prodn. of chemically modified tapioca starch used in puddings. By washing to the specified ash content, acetyl odours and flavours can be eliminated or minimised.

See Also

D16 DS2444947

D16 US4237693

D14: FOODSTUFF MACHINERY

★ D14 D/01 ★CS 8000-648
tins peeling and cutting appts.
ORYSEK V 31.01.80-CS-000648
(05.09.80) A23n-15/08

★ D14 00040 D/01 ★DE 2923-100
tins charging station - which pushes tins on pallets lowered by mechanism inside frame

TMOS LEBENSMITTELT 07.06.79-DE-923100

(03.12.80) A23l-03

79 as 923100 (12pp39)

Machine to load frames with pallets carrying tins of food, ready for charging them into an autoclave for sterilisation uses frames with side walls which are loaded, one at a time, on a lifting jack. Pallets in the frame are raised by the jack into a store above, and the bottom pallet. This is charged with tins sideways from a bin by a pusher cylinder.

After each layer has been charged, the jack is lowered and another layer is dropped until the frame is full. It is then pushed out by a pusher cylinder and taken to the sterilising autoclave.

The plant eliminates all unnecessary transport operations. The tins weigh less and allow better access to the sterilising medium.

★ D14 00143 D/01 ★DE 2924-098
valve for perishable food - with upstream ball sealing disc operating full hydrostatic pressure

OTELMANN & CO 15.06.79-DE-924098

(18.12.80) A23g-03/02 F16k-05/20

79 as 924098 (12pp39)

The valve has a spherical plug which is coupled to the drive shaft. The ball itself is located in the valve housing between two upstream sealing discs which contact the ball with a certain preload. The housing for the sealing disc at the inlet side of the ball valve is so

designed that the area of the sealing disc opposite to the area contacting the ball receives the full force of the pressure of the cut-off liq.

This surface area of the inlet sealing disc is at least equal to, but preferably greater than the clear passage area of the sealing disc.

This creates a ball valve in which any detrimental effect of deposits has been eliminated. The valve is therefore ideal for perishable food such as chocolate where deposits may spoil later batches. Both sealing discs are now kept firmly pressed against the ball.

DPON/ ★ D14 00162 D/01 ★DE 2924-199
Ice cream portion scoop - with counter for every turn of the ice cream dispensing wire loop

DA PONTE BECHER B 15.06.79-DE-924199

(18.12.80) A23g-09/28

15.06.79 as 924199 (10pp39)

An ice cream dispensing scoop is a hemispherical cup in which a semicircular wire loop can be turned to detach the portion. The turning motion is carried out by compressing two pincer handles to move a rack attached to one handle relative to a pinion, supported on a bracket of the other handle. This pinion turns a shaft with the detaching wire loop at the end. Each operation of the pincers also moves a lever between two pins which advances the position of a mechanical counter by one digit.

This is a simple device which can be produced at low cost. It provides an exact check of the number of ice cream balls issued by the salesman and cuts out any arguments. It also prevents them from playing with the tools empty and wearing them out.

HOWA- ★ D14 00348 D/01 ★GB 2049-455
 Mixing and dispensing appts. for animal feed - with rotor operable at slow mixing speed and faster discharge speed
 HOWARD MACH LTD 00.00.80 GB 009357 (21.02.78-CH3-006784)
 (31.12.80) B01f-07/02 B01f-15/02
 24.04.79 as 009357 (7pp295)
 Appts. comprises a part cylindrical container which has a rotor shaft extending axially of it. Rigid arms are secured to the shaft at spaced intervals. The ends of the arms are adjacent the inner wall of the container. The shaft is rotated at 5-15 r.p.m.
 There is a filling and discharge opening in the upper part of the container. The speed of rotation of the shaft and arrangement of the appts. are such that the container can remain open during mixing without inadvertent discharge of material. An external conveyor parallel to a side edge of the container opening removes discharged material.

STAR- ★ D14 00483 D/01 ★US 4237-782
 Vegetable washing scrubbing or peeling appts. - with rotating rollers forming trough within which double helix tumbles vegetables
 STARR INC 27.11.78-US-963794
 (09.12.80) A23n-07/02
 27.11.78 as 963794 (8pp295)
 Fruits and vegetables are processed using rotatable rollers arranged about a common axis to define a U shaped trough. Each roller has a fixed position relative to the trough but is rotatable about its own axis. Each roller is driven independently.

The products to be processed are mobilised by a helix rotating the trough to lift the products with a tumbling action. The rotatable augers at both the inlet and outlet ends of the trough. Prod. load and the degree of processing is controlled by individual and independently controlled hydraulic motors processing rollers, prod. mobiliser appts. and waste auger.

ITOC- ★ D14 00650 D/01 ★US
 Roller and ring extrusion press - having means to sense slip between the roller and ring and control material feed to prevent blockage
 INT OCTROOI MAATSC 03.05.79-US-035782
 S02 T06 (09.12.80) B29f-03/*
 03.05.79 as 035782 (7pp525)

In an extrusion press of the type in which material is extruded through a die ring by a roller moving relative to the ring between the ring and the roller is sensed (or the rate of charge and a feed parameter (e.g. temperature or feed rate) is adjusted to prevent blockage of the die ring which, it has been found, does not ensue soon after slip begins.

In pref. embodiment, devices such as tachogenerators and proximity detectors measure the rotation of the ring and roller. A difference signal signifying the degree of slip is used to control the feed rate. Blockage is prevented. A quoted use of such a press is the production of pelleted animal feed.

D15: WATER TREATMENT

RIHA/ ★ D15 D/01 ★CS 7804-052
 Waste waters elimination
 RIHACEK L 20.06.78-CS-004052
 (15.09.80) C02f-01

TRUB/ ★ D15 D/01 ★CS 7806-995
 Complex processing of difficult to decompose emulsions
 TRUBACK 27.10.78-CS-006995
 J01 (15.09.80) B01d-17/04 C02f-11/14

LARI/ ★ D15 D/01 ★CS 7807-753
 Appts. eliminating oily cpds. from fluctuating surfaces
 LARISCH V 27.11.78-CS-007753
 H03 (15.09.80) C02f-01/40

SPIL/ ★ D15 D/01 ★CS 7900-555
 Aerobic processing of pig farm waste
 SPILKA V 25.01.79-CS-000555
 (15.09.80) C02f-03/12

HEJD/ ★ D15 D/01 ★CS 7901-169
 Purificn. of effluent from nitrobenzene or nitrotoluene prodn.
 HEJDA Z 22.02.79-CS-001169
 E14 (15.09.80) C02f-09

NOVA/ ★ D15 D/01 ★CS 7906-173
 Rapid water filters attachment - for water filtration and filtering agent regeneration
 NOVAK V 12.09.79-CS-006173
 (15.09.80) C02f-01

HERE/ ★ D15 D/01 ★CS 7907-158
 Impurities elimination during water processing
 HEREIT F 22.10.79-CS-007158
 (15.09.80) C02f-03/08

RIPP/ ★ D15 D/01 ★CS 7907-864
 Emulsion electro-coagulation and flocculation breaking appts.
 RIPPA F 19.11.79-CS-007864
 J03 (15.09.80) C02f-01/46

BART/ ★ D15 D/01 ★CS 7908-676
 Water purificn. and treatment appts.
 BARTAK L 12.12.79-CS-008676
 (15.09.80) C02f-01

KOMO/ ★ D15 D/01 ★CS 8000-317
 Elimination of organic acids from aq. solns.
 KOMORA L 16.01.80-CS-000317
 E19 (15.09.80) C02f-01/58 C07c-51/42

LINM ★ D15 00013 D/01 ★DE 2
 Biological waste water purificn. - by increasing oxygen content by gasifying and before dividing waste water and activated sludge into purified water and sludge
 LINDE AG 05.06.79-DE-922719
 (18.12.80) C02f-01/72 C02f-03/12

05.06.79 as 922719 (11pp200)
 In biological waste water purification comprising (i) waste water gasification with air in the presence of activated sludge, (ii) dividing off the waste water-activated sludge mixt. from gasifying zone into purified water and sludge in an after-clarifier and recycling at least part of sludge to gasifying zone, the oxygen content of the waste water-activated sludge mixt. is increased by gasifying and before dividing into pure water and sludge, that 5-25(10) mg/l oxygen are maintained in after-clarifier.

Aerobic conditions and BOD degradation in after-clarifying tank are achieved. Waste water dwelling time in activating tank is shortened and activating tank size can be kept small.

LINM ★ D15 00015 D/01 ★DE 2
 Two/step biological waste water purificn. - by gasifying with air first and with oxygen enriched air in last stage of second step
 LINDE AG 05.06.79-DE-922761
 (18.12.80) C02f-03/12

05.06.79 as 922761 (17pp200)
 Waste water is purified biologically in a 2-step sludge activating plant, most organic impurities being degraded in first step with residual degradation and inorganic N cpd. oxidn. take place in second step. Novelty consists in gasifying the liq. charged to second step in at least 2 separate second step gasifying zones. Gasification takes place with air in at least the first gasifying zone, or with atmos., and with a gas contg. more vol.% oxygen than air in at least the last gasifying zone.

High oxygen contents are maintained in after-clarifying tank. Sludge damage by denitrifying is prevented. Nitrification efficiency can reach over 95%.

LINM ★ D15 00021 D/01 ★DE 2
 Biological waste water purificn. - by waste water and activated sludge gasification with atmos. air in open and with oxygen-rich air in closed zone
 LINDE AG 05.06.79-DE-922828
 (18.12.80) C02f-03/12

05.06.79 as 922828 (14pp200)
 In biological waste water purification in at least 2 consecutive gasifying zones in the presence of activated sludge, the waste water consisting of waste water and activated sludge is gasified with atmos. air at least in the first, open gasifying zone and with oxygen-rich air in at least the last gasifying zone, which is more highly oxygen-enriched than air in at least the last gasifying zones.

The process can be used for purifying waste water from a carcass processing plant and from seasonally operating plants such as sugar factories. Organic impurity decomposition and inorganic impurity oxidn. take place in separate zones. Dilution of expensive oxygen-enriched gas is prevented. Oxygen-content of discharge led to after-clarifier allows the maintenance of aerobic conditions.

★ **D15** 00068 D/01 ★DE 2923-576
 cleaning filter, esp. for drinking water - where elastic fabric
 traps solid particles collected on fine filter fabric
 KESSELMANN WERKE KG 11.06.79-DE-923576
 (18.12.80) B01d-27/12
 79 as 923576 (9pp1144)
 The filter consists of a tubular grid, which is e.g. a monolithic plastic
 grid with longitudinal ribs forming a circular row round the
 grid. The ribs are covered by a coarse fabric mesh (I) and then
 by a filter fabric (II). A liq., esp. drinking water, flows through
 fabric (II) first, and then through fabric (I); and the filtered water is
 removed from the interior of the tubular grid.
 Fabric (I) is elastic, and is forced inwards onto the grid by the
 pressure of the water being filtered. When the water is switched off,
 the spring in fabric (I) forces the latter outwards, thus pushing fabric
 (I) particles collected on fabric (II) fall off, thus increasing the
 life of the filter.

★ **D15** 00125 D/01 ★DE 2923-956
 remn. of light substances in waste water - by using float sepn. of
 substances, and ascertaining residue of emulsified and/or
 dissolved material
 ASSAVANTW MICHELbacher 13.06.79-DE-923956
 (18.12.80) G01n-33/18
 79 as 923956 (9pp391)
 Light substances are present in the waste water in separable,
 emulsified and dissolved form. First the separable component
 is removed from the specimen by flotation and this volume is
 determined. Then the volume of the emulsified and/or dissolved
 substances in the specimen residue is determined. Preferably
 the first portion is determined by solvent extraction after flotation,
 then measuring the light substance concentration in the extract.
 The solvent extraction is also used for the specimen residue to
 determine the emulsified and/or dissolved component portion. For
 this purpose two extraction vessels are connected in series and are
 operated by suitable valves to a concentration meter. Both
 vessels and the meter have supply lines for the solvent, the
 extraction vessels being optionally fitted with stirrers, at least one of
 which may be coupled with a sprinkler.

★ **D15** 00132 D/01 ★DE 2924-048
 electric conductivity monitor for highly purified water - has
 electronic switch connecting display and/or actuator to source only,
 and electrodes are dipped in water
 HLAUSER E 15.06.79-DE-924048
 (18.12.80) G01n-27/06 G01n-33/18
 79 as 924048 (10pp391)
 Water of high purity, whose electric conductivity is monitored, is
 supplied from a generator, or reservoir. The monitoring is carried
 out by a display and/or actuating device which is controllable by the
 electric current between two spaced electrodes, located in the flow
 of monitored water. The display and/or actuating device is
 connected to an electric power source by a switching device only
 when the two electrodes are dipped in the water.
 The switching device is preferably actuated mechanically by the
 pressure of the water and may be in the form of a water pressure actuated
 switch. This pressure may be generated by a dam or a throttle in the
 flow path, while a differential pressure switch may be used. A
 float switch, or a float switch may be also used in the system.
 The monitoring system finds typical application in the
 pharmaceutical industry.

★ **D15** 00214 D/01 ★DE 3009-707
 treatment system for water or sewage - with flocculation
 settling chamber in common housing
 DYGOSKIE BIURO PRO 05.06.79-PL-216133
 (18.12.80) B01d-21 C02f-01/52
 80 as 009707 (9pp39)
 The purification plant for water or sewage consists of a flocculation
 chamber in a common housing with a settling chamber. The former
 has a trapezoidal bottom, with inlet pipes directing the influent
 towards both sides of a triangular projection. Side walls with
 baffles separate the inner chamber carrying horizontal layers of
 sludge through which the liquid ascends, from the housing walls.
 The settling chamber with its sludge extraction at the bottom is
 connected through an overflow and a descending passage. It has in its
 lower part a laminated counterflow stack, and an effluent trough
 for purified water in its top.

The system requires no mechanical agitators and represents a
 compact unit which can be accommodated in a container of standard

★ **D15** 00299 D/01 ★DE 3022-273
 chlorine dioxide generator giving chlorine-free aq. soln. - for
 treating sewage and power station cooling water
 SCHER & PORTER LTD 14.06.79-US-048633
 (18.12.80) C01b-11/02
 80 as 022273 (22pp16)
 The generator for the prodn. of Cl₂-free ClO₂, esp. for use in a
 sewage, has a reactor with 2 inlets and an outlet. There is a supply of

aq. NaClO₂ to one inlet and a supply of unpressurised Cl₂ gas to the
 other inlet, so that gas is only drawn into the reactor when reduced
 pressure is present, when the Cl₂ reacts with NaClO₂ to produce
 ClO₂. An ejector is coupled to the outlet and operated by a water
 stream, so that a reduced pressure is produced and the ClO₂ is
 drawn from the reactor into the ejector for mixing with the water
 stream, and a dil. ClO₂ soln. is discharged, which can be passed to
 the process. There is also a reduced pressure regulator between the
 Cl₂ gas supply and inlet.

Generator gives ClO₂ in a concn. suitable for use as disinfectant
 for sewage treatment and power station cooling water systems and
 is economical in operation.

KOPA- **D15** 72776 Y/41 = DS 2711-528
 Continuous dewatering of flocculated sludge with screen drum -
 contg. conveyor screw, with screen mesh size decreasing in
 direction of travel

KOPALNIA WEGLA KAMI (BOLE-UYCU) 27.03.76-PL-188312
 (18.12.80) *DE2711-528 B01d-17/08 B01d-33/06
 16.03.77 as 711528 (3pp1045)

The mesh of the gauze in a strainer drum for dewatering flocculated
 sludge, increases in size continuously from the inlet to the outlet. The
 carrier ribs distributed uniformly around the inner circumference
 are parallel to the axis of the drum and extend over its full length.

The dewatering is effected by the hydromechanical and
 mechanical treatment in the drum which is inclined upwards
 relatively to the horizontal. Rinsing nozzles are positioned above the
 worm transporter, and the low output of conventional filters,
 centrifuges and presses for this purpose is avoided.

A solid prod. with a low water content is obtd. which can be
 transported by normal conveyors. Only small amts. of low grade
 flocculants are required and the clean water can be recovered.

BABW **D15** 82185 A/46 = DS 2830-972
 Electrodialysis and ion-exchange treatment of ionised soln. - partic.
 water from prim. cooling circuit of nuclear reactor

BABCOCK & WILCOX CO 22.07.77-US-817952
 E36 J01 K05 (18.12.80) *BE-868-885 B01d-13/02 B01d-15/04 G21c-
 19/30 G21f-09/12

14.07.78 as 830972 (8pp068)

A cell separates an ionised soln. into streams of concd. acid, conc.
 lye and deionised medium, e.g. cooling water for nuclear reactors is
 sepd. into pure water, conc. boric acid and LiOH.

The cell comprises a mixed bed of anion and cation resins with an
 anion membrane on one side and a cation membrane on the other side.
 Next to the anion membrane is an anion resin layer, then a cation
 membrane and finally an anode which is arranged with an interval
 from the anion resin and cation membrane. Next to the cation
 membrane is a cation resin layer, then an anion membrane and
 finally a cathode, which is arranged with an interval from the cation
 resin and anion membrane.

ROED- **D15** 14933 C/09 = DS 2835-709
 Sewage flotation system - with air dissolution in pressure-tight tank
 and pressure relief valves in cell walls

ROEDIGER W CO GMBH 16.08.78-DE-835709
 P41 (18.12.80) *DE2835-709 B03d-01/04 + C02f-01/24
 16.08.78 as 835709 (6pp1045)

The pressure vessel of a plant for clarifying water and densifying
 sludge by the detented flotation process, has a water jet injector, and
 in its upper section a compressed air cushion. Air is sucked in from
 the cushion and dissolved in the filling of water below for delivery
 through pressure reducing valves into the flotation vessel, which is
 fitted with a scavenging mechanism.

The plant can be mfd. and operated more economically, and it has
 a greater efficiency as regards flotation.

LUKK/ ★ **D15** D/01 ★FI 7901-165
 Oil sepn. from water surface
 LUKKARINEN T 09.04.79-FI-001165
 H03 (28.11.80) C02b

ROHR/ **D15** 84363 A/47 = GB 1581-985
 Water and waste water purification - by catalytic oxidn. promoted
 by free radical forming activated dissociated or ionised gas

ROHRER E 14.04.77-CH-004659
 (31.12.80) *DE2815-430 + C02f-01/72
 12.04.78 as 014365 (4pp931)

COD of water and waste water loaded with oxidisable substances is
 reduced by continuous catalytic oxidn. The catalyst used utilises a
 promoter contg. an excited, dissociated and/or at least partially
 ionised gas and/or gas mixts in amt forming a sufficient number of
 free radicals which initiate the oxidn., and continuously regenerate
 or reactivate the deactivated catalyst. Pref. atmospheric air is used
 to form the promoter, and the ratio of positive to negative ions in the
 gas or mixt is 2-5:1.

Method is esp used for producing potable or drinkable water.

OSAG D15 79282 B/44 = GB 1581-989
Activated sludge treatment of sewage - in one open and two closed stages with specified oxygen concn. for oxidation and flocculation
OSAKA GAS KK 15.04.78-JP-044708
(31.12.80) *DE2821-054 + C02f-03/12
09.05.78 as 018545 (8pp931)

Waste water contg. a BOD component is treated by micronising an activated sludge in the water to achieve a floc size less than 200 microns such that the cells are not broken nor destroyed; then blowing in an O₂-contg. gas to oxidise the component adsorbed by the sludge and flocculate the sludge.

Pref the micronising step yields a floc size less than 160 microns, and the oxygenation step uses a gas of O₂ concn. of 30 vol% or more. The two steps may be respectively carried out in separate treatment zones.

Waste water is treated by the process within a short residence time with prodn. of a reduced amt of excess sludge.

OILD- D15 63110 Y/36 = GB 1582-005
Gypsum granules for absorption on liquids - used to absorb oils, fats, water e.g. animal excrement, as supports for chemicals e.g. agriculture and as soil conditioning agents

OIL-DRI CORP AMERIC 04.05.76-US-683090
C03 + P35 (D22) (31.12.80) *BE-854-274 A62d-03 B01j-19/04 + C01f-11/46

01.04.77 as 013907 (9pp977)
Granular material comprising calcium sulphate is mfd by (1) providing plaster and water to mixing appts in predetermined proportions in the range 15-50% water 85-50% plaster; (2) spreading the batch material into a shape suitable for setting; (3) permitting to set, harden and dry; granulating; and (4) screening to segregate into different samples.

Pref the size range is screen size 4 to screen size 60 (U.S. sieve series). Oversize particles are recrushed. Pref. the granules are calcium sulphate dihydrate. The granules are used for moisture absorption in oil and grease absorption, as refuse in animal toilet boxes and as carriers for agrochemicals.

TSZE D15 57918 Y/33 #GB 1582-017
Purifying dung water from cattle stables - by homogenising, coagulating filtering, and purifying filtrate biologically and chemically and neutralising

TATABANYAI SZENBANYAK 07.02.76-HU-TA1384 (05.08.77-GB-032983)

+ P11 P14 (31.12.80) *DE2703-842 C02f-01/52 C02f-03/12 + C02f-09
05.08.77 as 032983 (4pp931)

Liq manure with a high content of organic materials is purified by aerobically homogenising it without phase sepn. then treating with chemical coagulants such that the liq and solid phases are sepd on a pressure belt filter.

The liq phase is purified in a biological active sludge purification plant, and the biologically purified filter water subjected to chemical post-purification with lime after removal of the activated sludge.

The pptd. organic materials are sepd from the purified water in a settling tank, the water neutralised with CO₂ or by storage, and the ppte sepd off in a settling tank. The manure is esp obtd from large stables where livestock are kept.

THOR-★ D15 00347 D/01 ★GB 2049-454
Device for domestic aerated beverage prepn. - has gas nozzle projecting from stopper with safety valve

THORN CASCADE CO LT 07.02.80-GB-004191 (14.05.79-GB-016622)

(31.12.80) B01f-03/04 B01f-13/04

07.02.80 as 004191 (4pp295)

A container of pressurised carbon dioxide is located in a housing and supplies a carbonating nozzle via a valved conduit. The nozzle extends from a stopper which is placed in the mouth of a liquid-filled bottle removably secured to the appts.

The stopper has a bent aperture normally covered by a resilient membrane and leading to a safety valve. The membrane yields at 20% of the design pressure of the safety valve. Pref. the liquid bottle is located in a shatterproof, translucent housing pivoted to the housing. Aeration is initiated by operating a lever which opens the carbon dioxide valve.

The membrane provides a slight back-pressure on the bottle to assist in its removal from the appts. The membrane also retains froth and prevents it from reaching the safety valve and possibly rendering it ineffective.

VERS/★ D15 D/01 ★IT 1047-984

Aq. effluents purificn. appts.

VERSINO C 09.09.75-IT-069243

(20.10.80) C02f

TOAD- D15 34119 B/18 = J8 004
Removing sulphur ions from liq. sample e.g. river water - by determin. of cyanide concn., by fixing cyanide as ferrocyanid acidifying to evaporate hydrogen sulphide gas
TOA PENPA KOGYO KK 31.08.77-JP-104641
E36 J04 S03 (29.11.80) *J54038-187 G01n-31 + G01n-27/46
33/18

31.08.77 as 104641 (4pp50)

Method comprises adding ferrous sulphate (Fe(SO₄) and/or fer ammonium sulphate (Fe(NH₄)₂(SO₄)₂·6H₂O) to the sample liq. cyanide (CN) contained in the sample liq. as ferrocyanide com reducing the pH value of the sample liq. to less than 2.0 with addn. of H₂SO₄ etc., and thus sepg. and removing sulphur contained in the liq. as H₂S gas. Pref. KMnO₄ soln. is added sample liq., to oxidise and remove remaining sulphur ion.

Sulphur ions interfering with the determin. of total cyanide by ion-selective electrode method can be satisfactorily rem with high removing rate by simple operation. The method is u for the determination of total cyanide concn. in river w industrial exhaust water, etc. (J54038187)

EIIC-★ D15 00446 D/01 ★J8 004
Device for purifying water - includes a vessel which can be towed the sea, a solid-liq. separator and an aerator

EIICHI ARAKAWA 06.03.75-JP-027390

Q24 (03.12.80) B01d-17/02 B01d-21 B63b-35/32

06.03.75 as 027390 (5pp26)

Method and device for purifying dirty water contg. oil, sludge, are claimed. The device comprises a vessel, which can be towed the sea, solid-liquid separator for sepn. by the overflow effect liquid, and an aerator. (J51102353).

MITQ★ D15 00447 D/01 ★J8 004
Appts. for agglomerating insol. material in waste water - comp separator chamber, skimmer and precipitator contg. incl. parallel plates

MITSUBISHI ELECTRIC CORP 21.00.74-JP-000805

(03.12.80) B01d-21/02 C02f-01/24

21.12.73 as 000805 /74 (5pp26)

Appts. treating a waste water such that insol. substances agglomerated into flock and precipitates is claimed. It comprises separator chamber, skimmer for skimming flock, and precipitator contg. inclined parallel plates. (J50091950).

OKAZ-★ D15 00448 D/01 ★J8 004
Muddy water treating appts. - comprises a circular sedimentation tank, annular plates and a tube to supply agglomerant

OKAZAKI KOGYO KK 19.07.76-JP-086111

(03.12.80) B01d-21/08

19.07.76 as 086111 (4pp26)

A device for treating muddy waters is new. It comprises a circular sedimentation tank annular plates coaxially disposed in the tank and cylindrical tube vertically disposed in the centre of the tank feed in agglomerant. (J53012151).

HITT★ D15 00450 D/01 ★J8 004
Device for filtering waste water - comprises filter chambers and filter cloths and air chamber connected to diaphragms to dev. sludge cake

HITACHI CONSTRUCT MACH 09.03.77-JP-024761

(03.12.80) B01d-25/12

09.03.77 as 024761 (5pp26)

Device for filtering waste water under pressure comprises filter chambers, each having filter cloths air chamber connected to rubber plates (diaphragms) held with retainer plates at both sides each centre plate so as to cover each air chamber to dewater sludge cake in the chamber. (J53110173).

MITO★ D15 00451 D/01 ★J8 004
Filter press for treating waste water - comprises filter frames, filter cloth and diaphragms, arranged alternately between end plates

MITSUBISHI HEAVY IND KK 29.03.77-JP-034995

(03.12.80) B01d-25/12

29.03.77 as 034995 (4pp26)

Press comprises filter frames, filter cloths, and diaphragms arranged alternately between end plates. Each diaphragm has projections at the marginal area and flat plate is attached at side of the marginal area opposite to projections fitted into grooves of filter frames. (J53119473).

BELL- D15 59038 W/36 = J8 004
Removal of liquids from sludges - on a continuous filter belt with the assistance of suction

GEBR BELLMER MASCH 27.02.74-DE-409269

J01 (03.12.80) *DE2409-269 B01d-33/04

18.02.75 as 020286 (3pp)

In a device for the removal of liqs. from sludges by gravity sepn. sludge is deposited on a moving endless filter belt through which

ows. The flow of the sludge is distributed by devices stationary respect to the belt, which reach down into the sludge. vice is useful in the applications dewatering of sewage sludge, making and chemical industry sepn. processes. The sepn. efficiency is increased using only a small amt. of energy. (J50125366).

J ★ D15 00452 D/01 ★ J8 0047-931
ce for carbonated drinking water prodn. - comprises mixer, ion accelerator with stirrers and pressure reducer connected to erator

ATSUSHITA REIKI KK 16.06.76-JP-071529
3.12.80) A231-02 B01f-01
76 as 071529 (2pp26)

device comprises a mixer for mixing water with carbon dioxide, ion accelerator having stirrers for converting the gas-liq. mixt. a liq., and pressure reducer connected to the accelerator. (54578).

D15 58451 Y/33 = J8 0047-958
tment of exhaust gas desulphurised waste liquor - contg. alkali (bi)sulphites and heavy metals, by addn. of heavy metal salts complex or precipitate the metals already present

IPPON CHEM IND KK 26.12.75-JP-154760
36 J01 (03.12.80) *J52079-562 + B01d-53/34 C01d-05/16 C02f-1/62
75 as 154760 (7pp34)

e gas-desulphurised waste liquor contg. an alkali metal sulphite, heavy metals, e.g. V ion, Ni ion, Fe, Pb, Zn, etc. and floated matters etc. is treated by adding salt(s) of metals from r, Mn, Fe, Co, Zn, Cu and Pb, pref. sulphate or chloride at pH 5.5- form insol. complex salt of V ion and insoluble hydroxides of other metals. Solid-liquid sepn. gives a purified sulphite-contg. contg. negligible heavy metal ions.

Alternatively, the purified sulphite-contg. soln. is oxidised by ion at pH 5.5-9.5 and above 40 deg.C to recover a purified alkali sulphate. (J52074562).

D ★ D15 00470 D/01 ★ US 4237-618
mechanical dewatering of sludge - by passing through serially connected porous cylinders with internal helical conveyors

OP INC 22.03.79-US-022910 (08.03.77-US-775673)
76 (09.12.80) F26b-07
79 as 022910 (10pp295) C.i.p. 4098006, 4121349, 4128946, 4140452, 4161825, 4193206 (+ 7.7.77(2), 20.10.77, 8.12.7

sludge is passed into one end of a first zone including a porous cylinder. The feed stream is pressurised by rotation of a conveyor within the cylinder. A continuous and unagitated of filter media comprising fibres from the feed stream is maintained between the inner surface of the porous wall and the al outer edge of the conveyor while organic waste within the al end is passed to the second end of the cylinder.

Water is withdrawn radially from the first zone while a stream a higher solids content than the original feed stream is drawn from the second end. This stream is depressurised and passed into a second similar zone. The process is again ated and the solids stream passed through a third similar zone. The process may be used for dewatering sewage sludge or wood scraps. The feed stream initially has at least 5 wt.% fibres, the final stream comprises over 60 wt.% solids.

★ D15 00585 D/01 ★ US 4238-296
ination by flash evaporation - after multistage direct contact ag with hydrocarbon vapour reducing scaling

ACIDENTAL RES CORP 17.05.78-US-907143
12.80) C02b-01/06
78 as 907143 (8pp295)

Water is heated by direct heat transfer and then transferred to a evaporator. Condensate from the evaporator creates a pure stream as a prod.

heating of the salt water takes place in typically three stages evaporator-condenser units each contg. a low boiling point, water-soluble liq. hydrocarbon. The hydrocarbon is heated by hot pure and its vapour bubbles through salt water to heat it. carbon vapour is condensed in each stage and recycled to the heated evaporator. Hot water flows through the stages counter- at to the flow of salt water.

direct heat transfer to the salt water reduces scaling.

D15 40684 B/22 = US 4238-297
natic determ. of organic substances in water - by titrating st acid potassium di:chromate, and back titrating with ferrous

EMENS AG 01.02.78-DE-804267
9 J04 S03 (S05) (09.12.80) *BE-873-833 G01n-27/42
79 as 002536 (10pp393)

determn. of dispersed water-immiscible solid organic material in re water comprises (a) adding known amt. of H2SO4 and 04 to a defined amt. of sewage water, (b) admixing K2Cr2O7

soln. with the analysis sample so obtd. and (c) heating the resulting reaction sample up to its b. pt. and maintaining it there with all of the O2, released from K2Cr2O7 soln. during redn. of Cr(6+) ions into Cr(3+) ions, reacts with and oxidises the organic material.

The residual Cr(6+) ions in the reaction sample are detd. by titrating the sample with Fe(2+) ion-contg. soln. so that the reaction: Cr2O7 (2-) + 6Fe(2+) + 14H(+) to 6Fe(3+) + 7H2O occurs. The consumed amt. of Fe(2+) ion-contg. soln. is measured by titration, comprises an indirect indication of the amt. of organic materials in the sewage water. The required amt. of Fe(2+) ions for the titration is generated via calometric redn. in Fe(3+) ion-contg. soln. during the prepn. and reaction of the reaction sample.

FLUI- ★ D15 00597 D/01 ★ US 4238-325
Ion exchange appts. for treating liq. - has two treating chambers, one loosely packed with resin particles and the other filled

FLUID POWER RES INC 20.09.78-US-943771 (15.06.73-US-370235)

J01 (09.12.80) B01d-15/04

20.09.78 as 943771 Div.ex.3960721 (+ 19.2.76.25.10.77-US-659381,845129) (23pp67)

Appts. for treating liq. with ion exchange material which prevents reverse ion exchange following regeneration and rinsing of the ion exchange resin comprises two interconnected treating chambers, each contg. a bed of 50 mesh or smaller ion exchange resin particles. In the first chamber the bed occupies the entire vol. of the chamber and in the second the bed occupies less than the entire vol.

During the treating mode the particles in the second chamber are loosely distributed by the upward flow of fluid. During the regeneration mode the particles form a packed bed in surface-to-surface contact with the bottom of the chamber due to gravitational forces and downward flow of regenerant and rinse fluid.

Used for treating water for industrial and domestic use. The particles in the second chamber exhibit more efficient ion exchange ability when the appts. is in regeneration mode than when it is in treating mode.

CIBA D15 63162 B/35 = US 4238-328
Elimination of heavy metal ions from waste waters - using adsorbents prepd. from amino cpds., haloacetic acids and reactive halide(s)

CIBA GEIGY CORP 24.02.78-CH-002036
A97 (A26) (09.12.80) *BE-874-398 C02c-05/08 + C02b-01/60
14.02.79 as 011970 (8pp974)

Heavy-metal ions are removed from an aq. soln. by bringing the soln. into contact with a water-insol.-adsorbent. The adsorbent is produced from a basic polynitrogen cpd. (I), an (ar)aliphatic carboxylic acid (II) and a crosslinking compound (III). (I) is capable of being acylated. (II) contains mobile substituents or a multiple bond capable of undergoing addition. (III) contains at least two reactive substituents and is different from (II). Pref. (I) and (II) are reacted and their product reacted with (III).

Process is esp. for effluent purification.

INFI- ★ D15 00600 D/01 ★ US 4238-329
Recovery of heavy metals from water contg. fluctuating concn. - by passage through filter coated with diatomaceous earth and insol. starch-xanthate while adding filter-aid and starch-xanthate upstream

INDUST FILTER CORP 14.09.79-US-075587 (25.08.75-US-607549)
A97 J01 M25 (09.12.80) B01d-15/04
14.09.79 as 075587 (+ 17.7.78-US-925056) (5pp960)

Recovery of heavy metals from a continuous stream of water contg. a fluctuating concn. of metal comprises (a) passing the water through a filter coated with a mixt. of diatomaceous earth (I) and insol. starch-xanthate (II) in ratio 1.75-3.0:1 and (b) continuously adding (I) and (II) upstream of the filter in ratio 1.75-3.0:1.

The amt. of (II) added upstream is sufficient to react with the min. concn. of metal but insufficient to react with its max. concn. The ratio of (I) to (II) is pref. 1.75-2.0:1.

The method is esp. used to recover Cu, Ni or Zn e.g. from water contg. 10-30 ppm Cu, and may be effected in conjunction with other continuous treatments.

BRPE D15 24106 C/14 = US 4238-331
Filtration of sea water, esp. for secondary oil recovery - with addn. of dispersant for organic impurities

BRITISH PETROLEUM LTD 01.11.76-GB-045275
A97 H01 Q49 (09.12.80) *GB1564-025 + C02f-01
27.06.79 as 061198 (+ 1.11.77-US-847422) (4pp977)

Treatment of seawater contg. waxy lipids to prevent clogging of a filter comprises (1) adding nonionic dispersing agent before the seawater is filtered to maintain waxy lipids in a dispersed state and (2) passing the seawater through a filter medium comprising fibres not negatively charged at the pH of seawater to remove solid impurities.

Pref. the filter medium comprises fibres having dia. 8-15 microns. The dispersing agent has HLB value in the range 8-18.

Method is used in the recovery of oil from offshore locations.

TIDW-★ D15 00602 D/01 ★US 4238-333
 Separator for removing oil from waste water - operated in two distinct phases automatically controlled by float switch

TIDWELL CONS 06.10.78-US-949364

P41 (09.12.80) B03d-03

06.10.78 as 949364 (9pp295)

Waste water is treated to remove oil, sand, and other solids. In a first phase the water is fed into a settling chamber via a grid to remove large solids. Oil floats to the surface and the water is permitted to flow under a barrier into a clear-water chamber. Clear water is discharged over a first weir which determines the liq. level during a first phase of operation.

When a predetermined depth of oil has collected in the settling chamber the waste water feed is terminated and the clear-water discharge is blocked. Liq. is pumped into the bottom of the settling chamber to raise its liq. level to the top of a second weir higher than the first. Oil flowing over the second weir is removed. Sediment is scraped from the bottom of the settling chamber.

The separator removes oil from waste water to render the water sufficiently pure for discharge into a sanitary sewer.

UNTC★ D15 00603 D/01 ★US 4238-334
 Removing impurities from liq. streams using filter bed - of fibrous filter aid treated to give surface charge and an oppositely charged active particulate material to cause clumping

ECODYNE CORP 17.09.79-US-076065 (04.04.74-US-457821)

A88 J01 (09.12.80) B01d-37/02

17.09.79 as 076065 C.i.p. 4177142 (+ 27.9.77-US-836967) (7pp513)

Impurities are removed from liquids by passing the liq. through a filter bed comprising a mixt. of treated fibrous filter aid material (I) and an active particulate material (II). The (I) and (II) have opposite surface charges in aq. suspension and the mixt. produces a clumping phenomenon. The (I) makes up 5-95 wt.% of the filter bed, and is treated with an electrolyte-type cpd. that produces a surface charge opposite to the normal surface charge by bonding to the surface of the (I).

Suitable (I) is e.g. cellulose fibres, polyacrylonitrile fibres, PTFE fibres, nylon fibres, rayon fibres, polypropylene fibres or PVC fibres. The surface charge on (I) is pref. produced by treatment with a cationic organic polyelectrolyte such as polyalkylene-imines, polyvinylbenzyl quat. ammonium salts, vinylbenzylsulphonium polymers, etc. (II) is e.g. an organic polymeric sorbent, zeolites, bentonite, zirconium oxide, zirconium phosphate, activated alumina, ferrous sulphide, activated carbon or diatomaceous earth. The clumping action of the (I) and (II) produces filter beds capable of removing toxic impurities with very high efficiency while maintaining a low press. drop across the filter bed.

BULT/★ D15 00605 D/01 ★US 4238-336
 Diffuser for waste sludge treatment - has radial array of pipes in sludge basin for air introduction

BULTMAN LE 24.05.79-US-042042

(09.12.80) B01d-21

24.05.79 as 042042 (6pp295)

A bed of sludge is treated by injecting air under pressure into the mass at locations positioned between the top of the mass and the basin bottom. The air is at a sufficient velocity and volume to diffuse the sludge until it can be handled like a fluid. The sludge is pumped from the basin into a conveyance which carries it to a disposal area.

The appts. used includes a system of pipes spaced along the entire bottom of the basin each extending inwardly towards the centre of the basin. Each pipe has an air outlet consisting of a pair of diverging orifices directed towards the bottom of the basin.

Useful for treating a sludge which may result from water treatment with a flocculant. The sludge alternatively may be derived from sewage or industrial waste treatment.

PETE/★ D15 00606 D/01 ★US 4238-337
 Appts. for producing methane gas by fermenting organic wastes - has automatic temp. control and solar energy and wind power as external heat sources

PETERS MF 09.02.79-US-010689

E17 H06 (09.12.80) C02f-01

09.02.79 as 010689 (7pp920)

Appts. for producing methane by the biological decomposition of waste matter comprises (a) a container for holding the waste, (b) a rotatable shaft enclosed in a cylinder of electrically conductive material and being provided with magnets which rotate with the shaft and generate electric eddy currents providing a first heat source, (c) paddle means coupled to the shaft, (d) at least one external heat source for increasing the temp. of the waste within the container, (e) a power source for the shaft and paddle wheels which provide a second heat source in the container, (f) temp. control means, (g) means for introducing waste into the container, and (h) outlet means for removing methane gas and excess heat from the container.

The appts. produces methane and other gases from sewage and other organic wastes. It may use solar heat for heating the digester

and wind power for turning the paddle wheels for further (fr) heat generation. Automatic operation for optimum temp. co provided.

SANI-★ D15 00607 D/01 ★US 4
 Sewage treatment appts. with interconnected chambers microorganism auto-digestion occurring in final chamber

SANILLOGICAL CORP 05.03.79-US-017736 (26.09.77-US-836)

(09.12.80) C02f-03/20

05.03.78 as 017736 C.i.p. 4142975 (+ 2.10.78-US-947780) (9pp295)

An appts. for treating sewage includes at least three s connected chambers. Each chamber is cylindrical and has a v conduit mounted within it spaced from its end walls and its end terminating beneath the liq. level in the chamber. It di flow of mixed liquor within the chamber.

Oxygen is supplied from a second conduit mounted co within the first. This produces a circular flow within the sew maintain particulate matter in suspension. A quiescent z provided in the last chamber of the series from where cla effluent is withdrawn. There is fluid communication betwe portions of successive chambers to define the upper liq. levels.

Biological sludge is eliminated by forced autodigestion microorganisms in the latter chambers of the series.

ALLC★ D15 00611 D/01 ★US 42
 Storage stable amorphous poly:aluminium sulphate(s) - r reconstituted to coagulant solns. for water treatment

ALLIED CHEMICAL CORP 09.08.79-US-065313

E33 (09.12.80) C02f-05/02

09.08.79 as 065313 (4pp478)

An amorphous poly-Al sulphate (I) is new OH)x(s (H₂PO₄)z(H₂O)w (I) (where x is 0.75-1.5; y is 0.7-1.07; 2 is 0-0.2 2.0-4.2; x + 2y + z is 3). Pref. (I) have x is 1.1-1.3; y is 0.8-0.9; z 0.14; and w is 2.5-3.5(I) is stable to storage without stabilis additives; is readily transported, packed, and stored; and is reconstituted to solns. useful as high performance coagular water treatment, etc.

SUME D15 08023 Y/05 = US 42
 Vinylidene fluoride an tetrafluoroethylene copolymer membr prepd. from solns. contg. solvent and nonsolvent for resin

SUMITOMO ELEC IND KK 17.06.76-JP-072063 (17.07.

088038)

A88 J01 L03 (A14 A85 A96 J03) (09.12.80) *DE2632-185 C08j-

22.06.78 as 918186 (+ 19.7.76-US-706366) (8pp937)

Porous material of fine porous size is prepared by (1) prepar resin soln. of vinylidene fluoride/tetrafluoroethylene copoly vinylidene fluoride homopolymer or their mixt., and at least solvent and one non solvent for the resins. The partial v pressure of the non solvent is lower than that of the solvent(s) nonsolvent is miscible with solvent provided that more tha resin and/or more than one solvent is present; (2) the solven nonsolvent are evaporated from the soln. to form a network of resin and then bridging that network with subsequently pptd. re

The porous membrane has a fine pore size suitable for mem filtration, ultrafiltration and dialysis.

FRAU D15 52664 B/29 = US 42
 Silicic acid hetero-polycondensate prodn. - from silicic acid d silane and water, useful as membranes and adsorbents

FRAUNHOFER-GES FORD ANGE 28.12.77-DE-758415

J01 (09.12.80) *DE2758-415 C08g-77/56

27.12.78 as 973560 (8pp937)

Silicic acid hetero polycondensate porous adsorbent is produc condensing (a) at least one hydrolysable silicic acid deriv. 4, wh is halogen, alkoxy and '2, R' is H or lower alkyl, (b) at least substd. silane nR''(4-n), where R'' alkyl, alkenyl, aryl or aralkyl n is 1 to 3, (c) opt. at least one functional silane n(R''')Y(4-n), v R''' is ylene, phenylene, alkylphenylene or alkylphenylene, halogen, amine, anilino, aldehyde, keto, carboxy, hyd mercapto, cyano, hydroxyphenyl, diazo, carboxylic acid alkyl sulphonic acid or phosphoric acid gp, n is 1 to 10, and/or (d) o least one involatile oxide soluble in the reaction medium and a of GpIa to Va,IVb and Vb forming an involatile oxide with stoichiometric amt. of water required for hydrolysis, in the pres of a condensation catalyst in an organic solvent in a single condensation until the reaction is complete.

The silicic acid heteropolycondensate comprises 50-90 wt.% (a) 50 wt.% (b), 0-15 wt.% (c), 0.40 wt.% (d). The solvent is removed dried to give a porous adsorbent of 15-35% porosity and a surface area of 40 to 1200 metre square/g.

Absorbed substances can be easily desorbed from the adso inexpensively using water, hot water, steam or dil. acids.

See Also

D16 CS7901723

D16: FERMENTATION INDUSTRY

YE/ ★	D16	D/01 ★ CS 7901-723
ks filtration ability evaluation		
MAYER J 15.03.79-CS-001723		
D15) (15.09.80) C12r-01/16		
LI/ ★	D16	D/01 ★ CS 7905-289
illus licheniformis CCM 3403 microorganism strain		
BELIK E 31.07.79-CS-005289		
(15.09.80) C12p-21/04		
EL/ ★	D16	D/01 ★ CS 7905-504
racellular prodn. of endo-1,4-beta-xylanase - by Cryptococcus		
ymes		
BIELY P 13.08.79-CS-005504		
B04 (15.09.80) C12n-09/42		
TE/ ★	D16	D/01 ★ CS 7905-980
icillium chrysogenum CCM F-648 strain		
MATELOVA V 03.09.79-CS-005980		
B04 (15.09.80) C12p-37		
UE/ ★	D16	D/01 ★ CS 7906-131
phovite microorganisms cultivation unit - with mixing and		
ration arrangement		
BAUER S 10.09.79-CS-006131		
(15.09.80) C12m-01/02		
LE/ ★	D16	D/01 ★ CS 7906-192
evibacterium sp AO 6/79 strain		
PALECKOVA F 13.09.79-CS-006192		
(15.09.80) C12p-13/08 C12r-01/13		
MC/ ★	D16	D/01 ★ CS 7906-243
rge vol. rectification appts.		
TAMCHYNA J 17.09.79-CS-006243		
J01 (15.09.80) C12f-01/04		
IJE/ ★	D16	D/01 ★ CS 7906-286
yme synthesis of radioactive adenosine - labelled with specific or		
specific kC or 3H radioactive isotope		
NEJEDLY Z 18.09.79-CS-006286		
B02 K08 S03 (15.09.80) C12p-19/40		
CA/ ★	D16	D/01 ★ CS 7906-407
s distributor for mass exchangers and fermentation appts.		
PACA J 22.09.79-CS-006407		
J04 (15.09.80) C12m-01/04		
RT/ ★	D16	D/01 ★ CS 7906-458
ary washing head		
BARTON M 25.09.79-CS-006458		
(15.09.80) C12l-11		
DP/ ★	D16	D/01 ★ CS 7907-183
ustrial strain of <i>Aspergillus niger</i> van Tieghem CCM-F-663		
LEOPOLD J 24.10.79-CS-007183		
(15.09.80) C12n-01/14		
OP/ ★	D16	D/01 ★ CS 7907-203
asses substrate for citric fermentation		
LEOPOLD J 24.10.79-CS-007203		
(15.09.80) C12p-07/48		
CE/ ★	D16	D/01 ★ CS 7907-255
oso-oxidase sepn.		
KUCERA J 25.10.79-CS-007255		
(15.09.80) C12n-09/04		
EM/ ★	D16	D/01 ★ CS 7907-319
roteins prepn. - by sequestering fermentation of nutrient media		
KUZMOVA E 29.10.79-CS-007319		
(15.09.80) C12n-01/22		
TE/ ★	D16	D/01 ★ CS 7909-206
mination of toxic effect of iron in penicillin biosynthesis		
MATELOVA V 21.12.79-CS-009206		
B04 (15.09.80) C12p-37		
IT/ ★	D16	D/01 ★ CS 7909-557
linuous cultivation of autotrophic microorganisms		
ITTRT F 29.12.79-CS-009557		
(15.09.80) C12m-01		

GBFO- ★ D16 00129 D/01 ★ DE 2924-006
Cultures of *Myxococcus fulvus* and its extracts - with antibacterial activity against Gram positive species

GBF GES BIOTECH FOR 13.06.79-DE-924006

B04 (18.12.80) A61k-35/74 C07c-103/52 C07g-11 C12n-01/20 C12p-01/04

13.06.79 as 924006 (20pp1251)

The culture broth obtd. by submerged, aerobic cultivation of *Myxococcus fulvus* DSM 1525 on an aq. medium contg. C and N sources and mineral salts at 15-40, pref. 25-35, deg. C is new. Also new are prods. obtd. by extracting (a) the harvested cells with a mixt. of water and polar organic solvent (I), or (b) the sepd. culture liq. with a polar organic solvent (II) having limited miscibility with water. Mixtures of active ingredients obtd. from the extracts by treatment with anion exchanger, chromatography on alumina, then freeze-drying are also claimed. These mixts. can be resolved into 3 individual components all with mol. wt. 1100 or less and all contg. a peptide fragment with Arg:Ala:Val ratio 1:2:3.

The active ingredients are antibacterials effective against Gram positive species, e.g. the mixt. has min. inhibiting concn. (microg per ml) of *Bacillus subtilis* and *Staph. aureus* 1, *E.coli* K12 and *Pseudomonas fluorescens* 30, *Schizosaccharomyces pombe* about 250.

KURT/ ★ D16 00153 D/01 ★ DE 2924-175
Beer brewing from hops, malt and water - using hop extract admixed with extracted hop mineral pref. recovered from ashed hop extn. residue

KURTZO 15.06.79-DE-924175

(18.12.80) C12c-09/02

15.06.79 as 924175 (16pp200)

Hop minerals, removed from hop extract by extn., are returned, at least partly, in beer brewing from hops, added at least partly as hop extracts, malt and water only, according to the German purity regulation.

The minerals are added, partly or entirely, as mineral materials recovered from worked-up, pref. ashed hop extn. residues. The minerals are added to the hop extracts, at least partly as ashed hops and opt. partly as dried hops, or as a mixt. of hops and ash. The minerals can also be added as dried and ashed hop plant parts.

The beer prod. obtd. is comparable to that obtd. by brewing with natural hops.

SEPS- ★ D16 00180 D/01 ★ DE 2924-344
Spore-less Basidiomycetes strains prepn. - by pairing a spore-less strain with a wild strain, and pairing the next two generations

SEP SOMYCEL SA 15.06.79-DE-924344

P13 (18.12.80) A01h-15

15.06.79 as 924344 (13pp1401)

Sporeless strains of Basidiomycetes can be prepd. by (a) pairing a strain with a mutation for sporelessness (sp-) with a wild strain; (b) allowing the di- or hetero-karyon obtd. to fruit and collecting the spores; (c) allowing the obtd. spores to germinate individually; (d) pairing the homokaryons obtd. in (c) with test homokaryons for sporelessness and bringing the di- or heterokaryons produced to fruiting; (e) examining the fruiting bodies for sporelessness and determining which homokaryons used in (d) for pairing contained the sp- mutation; and (f) pairing to homokaryons contg. sp- to give new di- or heterokaryons, which are then brought to fruiting and the fruiting bodies finally tested for sporelessness.

The most important edible fungi are Basidiomycetes, but the wild strains produce large amounts of sexual spores which can serve as vehicles for viruses, can cause allergies in humans and animals and, in the case of the species which destroy wood, can damage the environment.

TANA ★ D16 00290 D/01 ★ DE 3022-063
Conc. ethanol prepn. by sugar fermentation - by contacting gel-immobilised *Saccharomyces* or *Zymomonas* microorganism with fermentable sugar contg. culture liquor

TANABE SEIYAKU CO L 28.09.79-JP-125966 (13.06.79-JP-074972)

A97 E17 (18.12.80) C12p-07/06

12.06.80 as 022063 (30pp200)

EtOH prepn. by sugar fermentation to EtOH takes place by contacting an EtOH-forming *Saccharomyces* or *Zymomonas* species yeast or anaerobic microorganism, immobilised on a carrier gel, with a fermentable sugar-contg. culture liquor. Pref. carrier gels are sulphated polysaccharide, polyacrylamide, Na alginate, PVA, cellulose succinate and casein succinate.

EtOH is prepd. quickly in high concns., e.g. 100-200 mg./ml.

FUJI D16 41511 F/00 = DS 1929-355
Antibiotic thiopeptin antibacterial
 FUJISAWA PHARM KK 12.06.68-JP-040386
 B04 (18.12.80) *DE1929-355 A23k-01/17 + C07g-11
 10.06.69 as 929355 (17pp279)
 New antibiotic thiopeptin A1 (I) has elemental analysis: C 49.38%; H 4.93%; N 14.22%; S 11.72%; a mole wt. of 1637; empirical formula: C₆₇H₆₈N₈S₅O₂₁; a m.p. of 223-226 degs. C; optical activity (alpha 23/d) of -71 degs. (c is 1 in chloroform) an Rf-value of 0.78 in chloroform/methanol is 10:1; a characteristic UV- and IR-spectrum; soluble in dioxan, DMSO, DMF, pyridine, chloroform and 3-N HCl; slightly soluble in methanol, acetone and ethylacetate and insol. in ether, benzene, n-hexane, petroleum ether and water; amino-acid compn. after hydrolysis with 6N hydrochloric acid at 110 degs. for 24 hours of 0.93 mole threonine, 1.01 mole valine and 0.91 mole cysteine, calc. to 2 mole alanine. Also claimed are new antibiotics thiopeptin A3 (II) and thiopeptin B. A thiopeptin antibiotic complex (IV) obtd. by culturing *Strept. tateyamensis* ATCC 21389 in usual medium, followed by extn. of the mycelium cake with acetone, and the mycelium cake obtained in this process are also claimed.
 (I) - (IV) have antibiotic activity against many micro-organisms and may be used in feedstuff additives, to promote growth in animals without side-effects.

ASAH D16 21382 W/13 = DS 2444-947
Filter for absorbing polyphenols from wines, beers - contains polyamide and cellulose fibres, (hydr oxide of titanium, zirconium, aluminium or silicon)

ASAHI KASEI KOGYO K 05.04.74-JP-037812 (17.09.73-JP-103741)
 A88 E37 J01 (A97 D13) (18.12.80) *DE2444-947 B01d-39/16
 17.09.74 as 444947 (12pp260)
 Asbestos free filter materials consist of (a) pref. 5-90 pts. wt. polyamide fibres of mean dia. 0.05-10 micron and mean length 0.5-100 mm; (b) pref. 10-95 pts.wt., powdered Al, Ti, Zr and/or Si-oxide, -hydrate and/or -hydroxide of particle size 0.1-100 micron as inorganic absorbing material; and (c) pref. 10-150 pts.wt. per 100 pts.wt. (a) + (b), cellulose fibres of mean dia. 5-50 micron and mean length 1-100 mm. The powders are fixed within a thin fleece sheet or cloth made from the fibres.

The filler material pref. also contains an N-substd. polyamide contg. in the main chain gps. N-(CH₂OR)-C(O)-, where R is 1-4C alkyl. The main chain of the polyamide pref. consist of nylon-4, -6 or -66. The absorbing material is pref. gamma-Al₂O₃, bohmite, Zr(OH)₄, ZrO(OH)₂ and/or Ti(OH)₄.

Turbidity causing polyphenols can be removed from vegetable based beverages more effectively than previously without loss of nutrients.

FRNG D16 64839 B/36 = DS 2808-022
Ultrafiltration circuit with recirculation - having two ultrafilter modules mounted in vertical leg with liq. head of 0.5 to 1.5 times pressure drop in module

FRINGS H CO GMBH KG 24.02.78-DE-808022
 J01 (18.12.80) *DE2808-022 B01d-13 B01d-31
 24.02.78 as 808022 (4pp1045)

The circuit for the ultrafiltration of a fluid contg. micro-organisms or insoluble material in amts. which are not large, such as vinegar, fruit juices, wine, under a hydrostatic pressure of 200-500 mbar, has at least two, vertically aligned, filter modules, in series, through which the flow is from top to bottom.

The vertical space between these corresponds to 0.5 to 1.5 times the pressure loss of a filter module, and these are connected by a line with a low loss in pressure. The installation has also a container which is filled automatically with the fluid to be filtered, to a level, 1-4m above the outlet of the bottom module, a circulating pump and filtrate receiver.

The plant prevents environmental pollution since it has a great efficiency and requires very little maintenance.

UYST-★ D16 00326 D/01 ★GB 1581-832
Cultivation of filamentous fungi - on discs rotating cyclically through nutrient and oxygen

UNIV OF STRATHCLYDE 17.06.76-GB-025050
 B04 (31.12.80) C12m-01/14 C12n-01/14 C12r-01/68
 28.03.77 as ----- (5pp295)

A filamentous fungi is cultivated by partially filling a rotating disc cultivator with a liquid nutrient medium. Sterile air is introduced into the space above the nutrient. Spores of the fungi are inoculated into the nutrient. They adhere to the discs which are rotated so that the spores are cyclically subjected to the nutrient and sterile air.

The spores grow to form a layer of fungi adhering to the discs. At least one disc is segmented with the segments manually removable to permit monitoring of the fungal growth. The nutrient may subsequently be replaced with a substrate deficient in growth-promoting constituents and contg. material convertible by the fungi to a desired product.

The fungi may be of the *Mucor*, *Lasiodiplodia*, *Rhizopus* or *Aspergillus* genera. Citric acid may be produced using the fungus antibiotics or enzymes.

MORG D16 00345 A/05 #GB 1581
Bifidus powder contg. lactulose - used in prevention or treatment of intestinal disorders

MORINAGA MILK KK 10.06.76-JP 067067 (05.12.77-GB-05060)
 B04 (31.12.80) *J52151-787 A61k-35/74 A61k-47
 05.12.77 as 050607 (11pp931)

A powdery compsn. comprises 28-57 wt% of lactulose, less than 10 wt% of moisture and at least 8 x 10 power 10 freeze-dried viable cells of the genus *Bifidobacterium* per g of compsn.

Pref the compsn comprises 40-70 wt% of a powdered mixt. of cells and a suspending agent for them, comprising at least 2 x 10 power 11 cells per g of mixt., and 60-30 wt% of powdered mixt. of at least 55 wt% of lactulose, and lactose and galactose to balance.

The compsn provides a high density of cells of high survival during prolonged storage, which may establish themselves in the intestinal tract when orally administered.

ALLI-★ D16 D/01 ★IT 1047
Contraceptive vaccine prepn.

ALL INDIA INST MED 20.06.75-IT-050159
 B04 (20.10.80) A61k

SUMO D16 24737 U/18 = J8 0047
Pesticide compsns - contg bacillus spp and pyrethroids

SUMITOMO CHEMICAL KK 14.10.71-JP-081183
 C02 + Q62 (27.11.80) *NL7213-916 + A01n-53 A01n-63
 14.10.71 as 081183 (6pp)

Synergistic pesticidal compsns. contain (a) dried cells or to preps. of *Bacillus thuringiensis*, *B. meritai* and/or *B. popillii* with (b) at least one pyrethroid insecticide e.g. allethrin, dimethrin or tetramethrin, in ratio (b):(a) 1:999 to 9:1. (J48044415).

NISS ★ D16 00418 D/01 ★J8 0047
Preventing infectious atrophic rhinitis of young pig - by inoculating pregnant mother with cell body of Bordetella bronchiseptica vaccine

NISSHIN FLOUR MILL KK (ZENK-) 19.09.72-JP-093186
 B04 C03 (27.11.80) A61k-39/10
 19.09.72 as 093186 (5pp22)

Cell body of microorganism *Bordetella bronchiseptica* vaccine inoculated into pregnant pig, whereby the immunity is transferred to the young pig and thus infectious atrophic rhinitis is prevented. (J49047163).

PITT- D16 46944 T/29 = J8 0047
Immunizing vaccine prepn - for kennel cough

PITTMANN MOORE CORP (PIT) 02.12.70-US-094570
 B04 C03 (27.11.80) *J47011-597 + A61k-39/15
 02.12.71 as 097528 (5pp)

Vaccine comprises an effective amt. of live, non-pathogenic canine parainfluenza virus and live, non-pathogenic, canine adenovirus Type 2, in a physiologically acceptable carrier. In preparing vaccine, the virulent CPI virus and canine adenovirus Type 2 are each propagated in animal tissue cultures until both viruses are rendered non-pathogenic. The CPI virus is capable of propagating in a wide variety of tissue culture systems, such as chick embryo, porcine testes, embryonic bovine kidney, canine kidney and monkey kidney, etc. and also in established cell lines, such as, Madin Darby bovine kidney (MDBK), Madin Darby canine kidney (MDCK), etc.

For the propagation of the canine adenovirus Type 2, kidney tissue cultures are partic. those derived from bovine and dog. Attenuation of each virus is accomplished by standard serial passage or terminal dilution passage techniques where a sufficient number of passages are employed until the virus is rendered non-pathogenic and the vaccine prepd. therefrom will stimulate an immuneresponse.

AGEN D16 88389 B/49 = J8 0047
Immobilised enzyme fibre prodn. - using polyvinyl alcohol filament modified by treatment with aldehyde contg. (substd.) amino group corresp. acetal

AGENCY OF IND SCI TECH 01.12.77-JP-144109
 A96 B04 F01 (A14) (28.11.80) *J54138-624 D01f-06 14 D01f-11
 01.12.77 as 144109 (8pp173)

Immobilised enzyme fibre is produced by (1) spinning polyvinyl alcohol (PVA) to prepare PVA filaments, followed by treating filaments with aldehyde having amino (or substd. amino) group corresp. acetal, to obtain polyvinyl aminoacetal filaments, and immersing the resulting filaments in aq. soln. of enzyme to effect chemical combination of the fibre with the enzyme.

The immobilised enzyme fibre is applicable to industrial enzymatic reaction. The polyvinyl aminoacetal fibre has sufficient mechanical strength and improved enzyme-immobilising capacity. The capacity can be further increased by pre-treatment of the fibre with 0.1 normal acid soln. (J54138624).

D16 77244 A/43 = J8 0047-612
 vaccine prepn. for treating bordetella bronchiseptica infections
 contacting mutation inducing agent with fungi liquor and
 ing on blood-agar
CHIKU EISEI SHIKE 28.02.77-JP-021139
 C03 (01.12.80) *J53107-411 A61k-39/10 + C12n-01/20 C12r-01/*
 2 as 021139 (7pp69)
 process comprises contacting mutation inducing agent to
 ed fungi liquor of Bordetella bronchiseptica at logarithmic
 gation period and then, repeating centrifugal sepn. operation,
 ng sepd. substance with phosphoric acid buffered NaCl aq.
 at pH 7.0, coating the substance on blood-agar culture medium
 culturing by streak method and selecting temp-sensible
 ed strain that grow at 32 deg.C but may not grow at 34 deg. C or
 C by replica method at different temps.
 detella brochiseptica-infection attacks various animals such
 s, dogs, rabbits or mice and causes respiratory organ diseases,
 it attacks infant pigs and causes atrophic rhinitis that causes
 y of nasalconcha and gives hypoplasia and lowering of feed
 ency. (J53107411).

D16 44949 A/25 = J8 0047-878
 namide adenine di:nucleotide redn. with alcohol dehydrase - in
 nce of ethanol and weakly basic ion exchange resin to absorb
 and acetaldehyde
RIENTAL YEAST KK 25.10.76-JP-127305
 2 (02.12.80) *J53052-691 + B01j-47 C12p-19/36
 76 as 127305 (2pp43)
 n. of reduced type nicotinamide adenine.dinucleotide
 rises reducing nicotinamide adenine.dinucleotide with alcohol
 trase in the presence of ethanol. A soln. of pH 6-8 contg. ethanol,
 namide adenine.dinucleotide and alcohol dehydrase reacted
 contacting it with weakly basic ion exchange resin. The NADH
 acetaldehyde formed are absorbed from the reaction system,
 the redn. reaction of NAD with ADH proceeds in neutral
 tions, effectively utilising the ADH. Almost 100% conversion to
 H is obtd. (J5305269)

D16 11897 B/07 = US 4237-693
 trial aerobic fermentation - for mfr. of unicellular protein, in
 us contactor operating at gauge pressure above 2 bars
PERIAL CHEM INDS LTD 09.08.77-GB-033338
 252 (D13) (09.12.80) *BE-869-589 + F02c-01/04 F02c-07/02
 78 as 931156 (6pp1376)
 pressure of 2 bars and is fed to a fermentor from which an off-
 es withdrawn at a pressure of at least 2 bars which is
 quently heated to prevent condensation and fed to a gas
 der. The power from the expander is transmitted to the
 ressor.
 f. the off-gas is withdrawn at a pressure of 3 to 10 bars.
 cess is energy efficient.

D16 00599 D/01 ★ US 4238-327
 gel chromatography for sepg. molecules - uses time varying
 ric field through gel media to alter apparent molecular size
BURDY R P 25.06.79-US-052177
 1 S03 X25 (09.12.80) B01d-15/08
 79 as 052177 (9pp67)
 res of molecules having net dipole moments or distributed
 es within their molecular chains are sepd. using liq. gel
 matography while applying a time varying electric field
 gh the gel media to alter the apparent molecular size. An
 ric field at radio frequency is created between two plates of a
 itor structure and impressed through the gel media column
 a is located between the plates.
 ed in sepg. cells or proteins in biological fluids. The varying
 intersets with the molecules through polarisation events that
 the molecular vibration and rotation motions. The induced
 ges cause the molecules to exhibit elution characteristics
 ct from those normally obtd. during liq. gel chromatography,
 itting molecules to be more selectively partitioned according to
 distinct polarisation properties.

CHEM- **D16** 06114 Y/04 = US 4238-473
 Beta glycoside derivs. for coupling to carriers - to produce antigens
 and immunoadsorbents(NL110177)
CHEMBIOMED LTD (CANA) 08.07.75-GB-028729
 B04 S03 S05 (09.12.80) *DE2630-596 A61k-35/14 C07h-13/06
 22.01.79 as 005579 (14pp393)
 Lower oligosaccharide cpds. active as blood gp. determinants have
 aldoses O-alpha or O-beta-glycosidically linked to form di-, tri-, or
 tetra- saccharides, and have a bridging arm O-beta-glycosidically
 linked to one of the aldose moieties.
 The bridging arm has the structure O-R-COR (where R is satd. 3-
 17C aliphatic hydrocarbon gp. and R is H, OH, NH2, NHH2, N3 or
 lower alkoxy). The aldoses are selected from glucose, galactose,
 marinose, fucose, glucosamine and acetamido deoxyglucose. The
 aldoses and their sequence and linkage configurations are chosen to
 give active blood gp. determinants.

STOJ/ **D16** 47144 B/26 = US 4238-478
 Hetero-vaccine for treatment of trichomonas syndrome - contains
 inactivated strains of Lactobacillus acidophilus in physiological
 medium
STOJKOVIC L (SOLB) 23.12.77-CH-016012
 B04 (09.12.80) *BE-872-884 A61k-39/02
 03.04.79 as 026496 (+ 6.12.78-US-967033) (6pp945)
 Heterovaccine for treatment of Trichomonas syndrome consists of
 inactivated microorganisms of strains of Lactobacterium
 acidophilum in soln. The microorganisms are deposited with
 Centraalbureau voor Schimmelcultures in Baarn (Netherlands)
 under references CBS 465.77, 466.77, 476.77, 468.77, 469.77, 470.77,
 471.77 and 472.77. At least 3 strains are present and there are approx.
 equal numbers of each strain.

Pref. the vaccine contains all 8 strains and is then effective in
 virtually all female patients. It can be used curatively or
 prophylactically and is useful against acute, chronic and
 asymptomatic trichomoniasis.

EGRE/ **D16** 16329 B/09 = US 4238-511
 Winemaking maceration process of the carbonic type - separates
 pendicles from whole grapes by hydrodynamic shock wave from
 positive rotary pump
EGRETIER M 26.05.77-FR-017294
 (09.12.80) *FR2392-115 C12g-01
 22.05.78 as 908425 (5pp918)

Grapes are macerated and fermented in the presence of CO2 by
 detaching them from the stems so a fraction of must is liberated
 during destemming, the berries become surrounded by the must.
 The berries (with stems) are forced toward a fermentation vat by
 pumping them against a CO2 back-pressure so they are subjected to
 pulsating shock waves of back-pressure which de-stems the grapes.

Fermentation is uniform throughout the vat without the need for
 acid introduction.

BECT ★ **D16** 00707 D/01 ★ US 4238-568
 Roller bottle for cell culturing - with internal surface treated to
 encourage cell adhesion prior to bottle assembly
BECTON DICKINSON CO 10.10.78-US-949450
 (09.12.80) C12m-01/24
 10.10.78 as 949450 (4pp295)

A roller bottle comprises a cylinder, one end of which is inserted and
 sealed within a groove in a first cap. The second end of the cylinder
 is also inserted in a groove in a second cap. The interior surface of
 the cylinder is treated to encourage cell adhesion. Pref. serrations
 are provided along the circumference of the caps to enable the bottle
 to rotate on a roller appts. without slipping. Pref. one end cap
 includes a neck with an external screw thread to which a cap can be
 secured.

The bottle is used for the culturing of cells. An evenly treated
 internal surface for cell adhesion is obtd. as the treatment does not
 have to be applied through a small neck.

See Also

D12 US4238513	D13 CS7704923	D13 CS7906144
D13 J80047060	D13 US4238514	D13 US4238566
D13 US4238567	D17 GB2049698	D25 GB1582200
D25 US4238345		

D17: SUGAR; STARCH

H/ ★ **D17**
 ucose and D-fructose prepn.
ULHANEK M 12.12.78-CS-008245
 3 (15.09.80) C13k-03

D/01 ★ CS 7808-245

HYBL/ ★ **D17** **D/01 ★ CS 8001-352**
 Sugar mixing and dissolving appts. - for sugar continuous, vertical
 centrifuge
HYBLER J 28.02.80-CS-001352
 (15.09.80) C13f-01/02

UNVO ★ D17 00288 D/01 ★ DE 3022-008
 Selective adsorption of components from an aq. soln. - using crystalline aluminosilicate adsorbent contg. water permeable polymeric binder (NL 17.12.80)

UOP INC 15.06.79-US-048955

A97 J01 (18.12.80) B01d-15/08 B01j-20/16

12.06.80 as 022008 (54pp513)

In a process for sepg. one component from an aq. soln. contg. a number of components, the soln. is treated with an adsorbent comprising a crystalline aluminosilicate contg. a water-permeable organic polymer which exhibits selective adsorption w.r.t. the desired component. The adsorbed component is subsequently recovered.

The presence of the water-permeable polymer overcomes dissolution of the silicon component in the soln., with consequent collapse of the adsorbent. Typically, the adsorbent is a Zeolite X or Y and the water-permeable polymer is cellulose ester or cellulose nitrate.

The process is esp. useful for sepg. aq. saccharide solns., e.g. contg. fructose and glucose, and is suitable for use on a small or large scale.

CORP ★ D17 00377 D/01 ★ GB 2049-698
 Non-crystallising dextrose-maltose syrup prodn. - using bed of immobilised glucoamylase giving precise control

CPC INTERNATIONAL INC 23.05.79-GB-018022

(D16) (31.12.80) C13k-01/06

23.05.79 as 018022 (6pp955)

Non-crystallising syrups contg. dextrose and maltose are prepd. by passing a maltose contg. starch hydrolysate through a mass of immobilised glucoamylase enzyme.

The extent of hydrolysis and the dextrose content of the prod. can be precisely controlled, and the reaction stopped at a chosen point. This avoids the need for blending of syrups which is necessary in batch processes.

CORP D17 74024 C/42 = US 4237-619
 Fluidising raw material e.g. starch in vertical container - having upper and lower fluidising chambers with stirrers, where fluid flows from lower to upper chamber

CPC INTERNATIONAL INC 15.12.78-US-970069

+ Q76 (09.12.80) *J55081-739 + F26b-17

15.12.78 as 970069 (7pp1376)

Fluidised bed appts. consists of an upstanding housing de upper and lower fluidising chambers which include agitators are connected by tubes, and a discharge which includes upstanding leg to which fluidisable material from one chambers and fluidising fluid is supplied from the upper chamber.

Fluidised material is discharged from the leg. Fluid is supplied to the lower chamber and passes through the tubes to the upper chamber. Material is supplied to the upper chamber. Pre agitators are rotatable blades.

Use of rotary airlocks in discharge tubes is prevented.

UNVO ★ D17 00563 D/01 ★ US 4237-619
 Sepn. of components in aq. mixtures - by selective adsorption of crystalline aluminosilicate(s) pretreated with aluminium cations to prevent silicon dissolution

UOP INC 29.05.79-US-043526

(09.12.80) C13d-03/12 C13k-03 C13k-11

29.05.79 as 043526 (11pp478)

The sepn. of a specific component (I) from a mixt. in an aq. stream by treatment with a crystalline aluminosilicate adsorbent (II) so that the required (I) is selectively adsorbed and may then be recovered, is improved by impregnating (II) prior to the treatment with Al(III) cations.

(II) includes a conventional binder (amorphous SiO₂-Al₂O₃), and is pref. a known X or Y zeolite contg. alkali or alkaline earth metals at exchangeable cationic sites. Impregnation of (II) is with an aq. Al halide soln. to give (II) contg. 0.01-0.5% pref. 0.05-0.1% wt. Al cations.

In the treatment, Al reacts with (II) and substantially reduces dissolution of the Si constituent of (II) which occurs on contact with aq. streams, and which is known to result in the disintegration of the adsorbent. (II) are used in aq. media e.g. for the sepn. of fructose from a mixt. with other sugars (esp. glucose).

See Also

D13 US4238344

D18: SKINS; HIDES; LEATHER; TOBACCO

DAGN/ ★ D18 D/01 ★ BR 7903-917
 Lower supporting cylinder raising mechanism control - for leather glazing and polishing machine

DAGNESE R 08.06.79-BR-003917

(09.12.80) C14b-01/50

ORLI/ ★ D18 D/01 ★ CS 7805-475
 Pelt treatment of pigskin prodn.

ORLITA A 22.08.78-CS-005475

(15.09.80) C14c-01/06

CURI/ ★ D18 D/01 ★ CS 7906-681
 Leather waste processing method

CURIK A 03.10.79-CS-006681

(15.09.80) C14b-05

GROS/ ★ D18 D/01 ★ CS 7907-134
 Shaving stand laying rollers drive

GROSSMANN J 22.10.79-CS-007134

(15.09.80) C14b-17/10

ONDE/ ★ D18 D/01 ★ CS 7908-569
 Flat articles drying installation

ONDERKA Z 10.12.79-CS-008569

(15.09.80) C14b-01/58

BALC/ ★ D18 D/01 ★ CS 7908-572
 Simulation of leather equipment conveyor delay

BALCAREK J 10.12.79-CS-008572

(15.09.80) C14b-17/10

CHFS D18 54165 U/37 = J8 0047-080
 Leather nourishing compsn - contg spray dried albumin, mineral or organic salts and polysaccharides

CHEM FAB STOCKHAU 29.03.72-DE-215212

(27.11.80) *BE-797-545 C14c-09/02 + C11d-01/32

29.03.73 as 036136 (6pp-)

Leather and hide are treated with solns. or dispersions of spray dried water soluble or emulsifiable oils and fats or waxes contg. 35% (0.5-30%) pref. 12.25% of mineral or organic salts, 0.1-90% (50%) pref. 20-25% albumin and derivs. 0.1-70% (2-50%) pref. 10% mono, oligo, polysaccharides or derivs. Mineral salts are chlorides, sulphates etc of alkali or alkaline-earth metals. Organic salts are alkali or alkaline-earth metal derivs. of mono or polycarboxylic acids.

The spray dried compsns. are free flowing powders in spite of their 70% fats content. Aq. solns. or dispersions are stable at pH 4 (J49006101).

HAUN D18 71893 B/40 = US 4237-619
 Compact filter rod for cigarettes - having series of drums and knives to assemble two or more components onto binder paper to form a continuous rod from which elements are cut

HAUNI-WERKE KORBBER KG 15.03.78-DE-811176

J01 P15 (09.12.80) *DE2811-176 A24c-05/50

01.03.79 as 016528 (6pp1358)

A machine for making a continuous cigarette filter rod which can be cut into recessed composite filters assembles dissimilar filter papers into coaxial groups, moves the groups sideways onto a moving adhesive-coated wrap web, with a holder placing a phantom plug after each group and withdrawing it as soon as the following group has adhered to the web, to leave a gap. Plugs are delivered by respective magazines with cutters and there is a number of holders each with a flute for a group of plugs and a phantom plug at one end. The web is wrapped around the adhered groups and is cut centrally across a gap.

D2: DISINFECTANTS; DETERGENTS

D21: DENTAL; TOILET PREPARATIONS

F/★ D21 00074 D/01 ★DE 2923-815
 Giving flavouring and aromatiser activity in paste - e.g. tooth
 by chemical or mechanical means
ENFTLE H 11.06.79-DE-923615
(3.12.80) A61k-07/16 C09k-03 C11b-03 C11b-09
79 as 923615 (5pp200)
 Chemical or physical means, e.g. a slowly-dissolving gelatin binder,
 added to a paste, e.g. tooth paste, massage cream, soap or other
 user, to retard flavouring and/or aromatiser activity in use.
 Flavouring delay acts as an incentive to thorough cleansing, e.g.
 brushing.

M-★ D21 00116 D/01 ★DE 2923-862
 Ant for anchoring magnetic holder in jaw bone - where holder is
 protected against corrosion, and retains dental prosthesis in human
 bone
HEMMANN ZAHNTECH 13.06.79-DE-923862
02 P32 (18.12.80) A61c-08
79 as 923862 (13pp1144)
 The device is drilled in the jawbone and used to locate a magnet or
 magnet assembly provided with a metal sheath for protection
 against corrosion. On the sheath is a hard ceramic mass, and then a
 mass of absorbent ceramic which completely surrounds the magnet
 fills the drilled hole. Mass is pref. an alumina ceramic; whereas
 the material is pref. a calcium phosphate ceramic. The magnet
 assembly pref. consists of a yoke contg. permanent magnets made
 of transition metals and lanthanides.
 The bone grows into the implantate and corrosion of the magnet is
 prevented.

D21 79851 T/50 = DS 2226-401
 Paste - contg visible agglomerates of abrasive particles on a
 polyplastic visible binder
ALGATE PALMOLIVE CO 03.06.71-US-149786
6 (18.12.80) *BE-784-352 A61k-07/16
72 as 226401 (9pp260)
 The agglomerated materials contain (a) a water insoluble binder and (b)
 abrasive particles with a Mohs hardness of 2-10, a mean dia. of 0.1-10
 microns in wt. ratios of 10-90 pts. (a) to 90-10 pts. (b). The water
 soluble binder is pref. low molecular polyethylene. The
 agglomerated particles are pref. produced by dry mixing of (a) and
 (b) and heating the mixt. while barreling to the softening pt. of the
 binder, cooling the mixt. and grading it.
 The brushing and abrading masses for tooth pastes are obtd. which
 are more stable while being worked in and during storage. The tooth
 paste can contain all other usual additives.

D21 58958 A/33 = DS 2704-850
 Giving basic aluminium chloride cpds. in absolute ethanol -
 but residue to form cosmetics, esp. antiperspirants, in
 aerosol sprays
HECHST AG 05.02.77-DE-704850
3 (18.12.80) *DE2704-850 C01f-07/56
77 as 704850 (4pp068)
 The use of a soln. of basic aluminium chloride (BAC) of formula
 $\text{Al}(\text{OH})_3 \cdot n\text{H}_2\text{O}$ (where n is 1.18-0.91 and $n+z$ is 6) in absolute ethanol
 gives stirring a suspension of the BAC and ethanol having a wt.
 ratio of BAC to ethanol of 1:3 to 1:9 at 20-30 deg.C until at least 97 wt.%
 BAC is in soln.
 The soln. has almost no residue and is suitable for use as an
 antiperspirant spray.

D21 18009 A/10 = GB 1582-028
 Use of fat-soluble perfume oils or pharmaceuticals - contg.
 a substituted hydroxyalkyl ester or amide as solubiliser (BE 28.2.78)
ANKEL KG AUF AKTIEN 01.09.76-DE-639293
B05 E19 (A25) (31.12.80) *DE2639-293 A61k-07/46 A61k-09/08
77 as 035628 (6pp974)
 The clear stable aq. or aq. - alcoholic solns. of fat-soluble perfume
 oils or drugs contain hydroxyalkylester-and/or N-(hydroxy alkyl)
 etheroxethylates of formula $\text{R}(3)\text{CO-X-CHR}(2)\text{-CHR}(1)\text{-}$
 R_4 (I). (I) act as dissolving intermediaries.
 R1 and R2 are H or 1-18C alkyl and total 6-20C. R3 is 1-12C alkyl or
 R4 is O or N(C2H4O)mH. n and m are each 0-40 and total 6-40.
 R3 is 1-5C alkyl. Pref (I) are derived from end position 16-18C
 alkanes. Pref. R3 is CH3. Pref. n + m is 10-30.

HANO- D21 02159 B/02 = GB 1582-179
 Cosmetic complex for face or hair treatment - has emulsifying value
 equal to that of sebaceous matter film
HANORAH ITALIANA SP 16.06.77-IT-024731
(31.12.80) *DE2747-532 A61k-07/48
03.11.77 as 045709 (4pp931)
 A sebum-like cosmetic compsn. is claimed which has a required
 value of emulsification (HLBr) of 10.4-10.7 when applied to the face,
 or 12.4-12.8 when applied to the hair. A sebotropic cosmetic compsn.
 is also claimed which has similar values of emulsification (HLB)
 when emulsifying sebaceous face film or sebaceous hair film.

Pref. a metering appts. is used, from which the distribution coefft.
 is obtd. and the required value of sebum be calculated using minimal
 amts. of material.

Cosmetics may be obtd. which provide a cleansing action on the
 skin such that dirt is removed by emulsification, rather than by
 dispersion or abstergency. The integrity of the sebaceous film
 impregnating the horny layer of the skin is maintained by the
 compsns.

TENT/★ D21 D/01 ★IT 1047-922
 Topical compsn. eliminating skin blemishes - and ensuring cellular
 regeneration
TENTA T L 13.07.73-IT-051435
B05 (20.10.80) A61k

NISW D21 76564 W/46 = J8 0047-025
 Emulsifying synthetic oils prepn. - by esterification of lactic acid
 with satd. branched alcohols
NISSHIN OIL MILLS KK 00.00.74-JP-029917 (08.01.74-JP-005095)
B07 E17 (27.11.80) *J50100-016 + A61k-07 C07c-67 C07c-69/68
08.01.74 as 029917 (2pp)
 Synthetic oils were prepd. by esterification of lactic acid with at
 least C16 satd. branched alcohols. The products were useful as
 emulsifiers.

In an example a mixt. of 6.3 moles 90% aqs. lactic acid, 6.0 moles
 5,7,7-trimethyl-2-(1,3,3-trimethylbutyl)-octanol and 0.1%
 $\text{eC}_6\text{H}_4\text{SO}_3\text{H}$ s stirred 3 hr. at 120-30 deg.C with removal of formed
 water to give 90% 5,7,7-trimethyl-2-(1,3,3-trimethylbutyl)-octyl
 lactate (acid value 0.10, OH value 155, sapon. value 172, viscosity 100
 centipoise at 25 deg.C) 2-octyldodecyl acetate also was prepd.
 (J50100016).

SHIS D21 26138 A/14 = J8 0047-607
 Make/up cosmetic prepn. - obtd. by mixing pigment obtd. by
 dispersing organic modified montmorillonite clay in alkali soln. and
 adding acid soln., with cosmetic base
SHISEIDO KK 29.07.76-JP-090591
(01.12.80) *J53018-740 A61k-07/02
29.07.76 as 090591 (5pp38)

Make-up cosmetics are prepd. by combining powdered processed
 pigment, obtd. by dispersing organic modified montmorillonite clay
 in aq. alkaline soln. of carthamin and adding aq. acid soln. to the
 dispersion for adsorbing carthamin on montmorillonite and colour-
 developing carthamin, with cosmetic bases.

The modified montmorillonite clay is pref. dimethylbenzyl-
 dodecyl-ammonium montmorillonite clay or dimethyl-dodecyl-
 ammonium montmorillonite clay. Carthamin content in the pigment
 is 1-20 (5-10)%. Aq. acid soln. is aq. citric acid soln. and aq. alkaline
 soln. is aq. Na_2CO_3 soln. contg. carthamin.

Carthamin is made the body pigment and it can be combined in
 solid, liquid, cream and powder make-up cosmetics. The obtd.
 make-up cosmetics have vivid colour and are stable. The colour of
 the make-up cosmetics is hardly bled in oil and water. (J53018740).

JOHN-★ D21 00503 D/01 ★US 4237-910
 Stable, alkaline, no-base hair relaxer compsns. - contg. alkali,
 oleaginous material, emulsifier, and modified hectorite clay gellant
JOHNSON PRODUCTS CO 24.09.79-US-078593 (30.04.79-US-
034933)
A96 P24 (09.12.80) A45d-07/04 A61k-07/09
24.09.79 as 078593 (9pp478)

Compsns. consisting of a continuous H_2O phase contg. dissolved
 H_2O -soluble alkali (to pH 12-14), and a dispersion of (by wt.) 3-50%
 oleaginous material (I), e.g. petrolatum, and 7-25% emulsifier (II)
 are improved by incorporation of (as stabiliser) 2-30% of a lipophilic,
 organically modified hectorite clay gellant (III).

(III) consists of (a) hectorite modified with a quaternised N-contg.
 cpd. with at least one 8-20C long chain substit. on the N-atom e.g.

stearalkonium chloride; (b) propylene glycol; and (c) a non-polar organic liq. e.g. castor oil. The total (I), (II), and (III) is not greater than 65% by wt. of the compsn. The aq. alkaline compsns. contg. (III) are stable to ageing, and do not de-emulsify or separate.

WHIT/ **D21** **63306 Y/36 = US 4237-911**
Dental prod. for oral hygiene - consisting of cellular pref. foamed thermoplastic shaft enclosing dental care agents

WHITE M J E 18.02.76-AU-004899
A96 P32 + P24 (09.12.80) *DE2706-199 A61c-15
01.05.79 as 035071 (+ 17.2.77-US-769655) (6pp964)

Dental prod. for maintaining oral hygiene comprises (a) elongated, chewable stem of resilient thermoplastic cellular material for cleaning tooth surfaces and having a density of 0.005-0.5 g./cc.; (b) elongated fin of thermoplastic material formed integrally with the stem, and arranged to be inserted between contact points between adjacent pairs of teeth and drawn lengthwise between the teeth; (c) dental fluoride disposed within the cells of (a) in amt. of 1 mg. of fluoride ions per vol. of cellular material of 2-12 cc., and (d) an outer skin extending around the stem and fin, which is broken after the cleaning operation of the fin.

Dental fluoride may be released in optimum amts. for dieting intake and topical application to tooth surfaces.

COLG **D21** **71735 B/40 = US 4238-476**
Transparent gel dentifrice of specified compsn. - contg. pure lauryl sulphate, not clouding on ageing

COLGATE PALMOLIVE CO 19.05.78-GB-020758
A96 E19 (A25) (09.12.80) *BE-876-314 A61k-07/18
10.05.79 as 037597 (6pp945)

Clear dentifrice comprises a vehicle contg. (A) 5-50% polishing agent, (B) liq. phase with refractive index matching that of (A) to give clarity and including humectant, (C) solid phase including gelling and/or thickening agent, (D) alkali metal fluoride or monofluorophosphate providing 0.01-1% F and (E) 0.1-5% surfactant

system. (A) has empirical silicon dioxide content at least particle size 1-35 micron, amorphous X-ray structure and ref. index 1.44-1.47 (E) comprises narrow cut alkali metal lauryl st. (I) whose C12 content is at least 90% and an anionic surfactant chosen from (a) alkali metal salts of satd. higher aliphatic amide of a lower aliphatic amino carboxylic acid cpd., (b) metal salts of satd. higher fatty aliphatic alcohol alkylene sulphate, (c) anionic phosphate ester mixts. of mono R((OC2H4)nP(O)(OM)2 and diester R(OC2H4)nO(OM)O(C2H4O)nR (where R is 10-20C alkyl; n is 1-6; and M is H, metal or ammonium) and (d) their mixts. Ratio of (I):(II) is a 3:1 (20:1). The dentifrice has reduced haziness or cloudiness.

ALBE * **D21** **00680 D/01 *US 42**
Cosmetic creme contg. fine oat flour - to reduce greasiness w loss of spreadability

ALBERTO CULVER CO 05.02.79-US-009341 (19.12.77-US-86) (09.12.80) A61k-07
05.02.79 as 009341 (4pp955)

A cosmetic creme comprises at least one cosmetic oil, an ammonium smectite gellant, and 40-60 wt.% oat flour of particle size such that at least 98% passes a US 200 mesh screen.

Suitable oils include hydrocarbons, isopropyl myristate, silicone oils, triglycerides etc. Commercially available preformed mixts. of the oil and the gellant may be used. Suitable oat flour is available "Oat-Pro" or "Ster-O-Pro" (RTM, Quaker Oats Co.)

The greasy character of the creme is eliminated without impairing the spreadability.

See Also

D13 GB1582042 D13 US4238344

D22: BANDAGES; DRESSINGS

SOKO/ * **D22** **D/01 *CS 7901-301**
Skin disinfectant
SOKOL D 26.02.79-CS-001301
P34 (15.09.80) A61l-13

FARH * **D22** **00061 D/01 *DE 2923-430**
Insoluble swellable crosslinked etherified polyvinyl deriv. prodn. - useful as water and moisture absorbent and retainer

HOECHST AG 09.06.79-DE-923430
A14 F01 (18.12.80) C08f-08
09.06.79 as 923430 (20pp016)

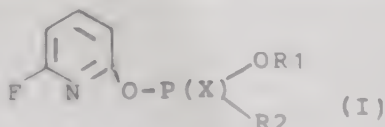
Prodn. of swellable, crosslinked and etherified polyvinyl derivs. (I), which are over 40wt.% insol. in water, involves etherification of polyvinyl acetate (PVAc) with previous, simultaneous or subsequent crosslinking with crosslinking agent (II) at least bifunctional towards OH gps. in aq.-alkaline medium, opt. contg. an organic solvent (III). It is pref. to use 1.0-3.5(1.5-2.5) mole alkali hydroxide, 0.5-5.0(1.0-3.0) mole water, 0.01-0.5(0.05-0.3) mole (II) and 0.1-1.5(0.5-1.2) mole etherifying agent (IV) per mole PVAc and opt. 4-40(6-30) wt.pts.(III) per wt.pt. PVAc.

(I) are specified for use as water and moisture absorbents and retainers. They are useful for baby care, tampons, medical and hospital applications, artificial leather for footwear, bags, upholstery, outer clothing and household applications or for covers (tent material, tarpaulins), for which they have the required liquid absorption and swelling capacity.

BADI * **D22** **00151 D/01 *DE 2924-150**
6-Fluoro-2-pyridyl-thio- and di-thio-phosphate derivs. - prepd. by reacting a 6-fluoro-2-pyridinol salt with a (di)-thio-phosphoryl chloride, useful as insecticides and nematocides

BASF AG 15.06.79-DE-924150
B03 C01 E11 (18.12.80) A01n-57/16 C07f-09/58
15.06.79 as 924150 (24pp280)

New 6-fluoro-pyridyl phosphoric acid derivs. are cpds. of formula (I) -P(X)(R2)(OR1) (I) where R is 6-fluoro-2-pyridyl; X is O or S; R1 is 1-3C alkyl; and R2 is 1-6C alkylthio or mono- or di(1-3C alkyl)amino. (I) are pesticides with insecticidal and nematocidal activity. They can be used in plant protection, as well as in the hygiene, stored products protection and veterinary sectors.



AMSA * **D22** **00215 D/01 *DE 301**
Sterilising apparatus control - superimposing selected parameters to some stages of stored basic cycle (PT 30.10.80)

AMERICAN STERILISER CO 05.06.79-US-045832
S05 T06 + P34 (18.12.80) A61l-02/24 G05b
16.04.80 as 014549 (27pp39)

A sterilising apparatus for use with steam or biocide gas controlled by an electronic unit which is set for a basic cycle from a program stored in a memory. The value, desired by the user, is selectively set for a certain parameter in at least one operating stage of the basic cycle and is also stored in an external memory so that it can be retrieved and repeated later. These special data combined with the program of the basic cycle to suit special cases. At least one stage of the basic cycle coincides with the cycle of a special application.

This type of control of the sterilising process can be adjusted to a large variety of special applications and is therefore universally applicable. It requires no specially trained personnel.

JOHH **D22** **07613 S/04 = DS 203**

Self-adhesive plaster
JOHNSON & JOHNSON 15.07.69-US-841898
A25 P34 (A12 A15 A96) (18.12.80) *NL7010-413 A61l-15/06
14.07.70 as 034761 (6pp260)

Clinging, elasticated adhesive plaster (I) consists of (a) a plastic carrier strip made from a foamed hydrophobic or hydrophilic synthetic or natural polymer and provided with an adhesive coating (b) an elastic suction pad made of a foamed polymer and attached to the adhesive and (c) a removable protective coating fitted over the carrier and pad. The carrier and pad have the same, reversible elastic extensibility of 110-130% their original length.

The carrier strip is pref. made from a foamed PVC film. The suction pad is pref. made from a carboxylated styrene/butadiene latex foam with a crosslinking agent introduced into the copolymer during or after the polymerisation. The carrier and the pad are either made from the copolymer latex and have an extensibility of 124% or from a polyurethane foam with an extensibility of 128%.

(I) adapt and cling better to irregularly formed body parts than their whole surface than known plasters.

FARH **D22** **29417 Y/17 = DS 255**
Hydrophilic strip material coated with modified cellulose ether for sanitary uses has improved water uptake capacity and retention

HOECHST AG 01.08.75-DE-559606 (01.08.75-DE-534358)
A94 F09 P21 P32 (A11 A96) (18.12.80) *DE2559-606 A41b-13 A61f-13 D06m-15/04
01.08.75 as 559606 Div ex 2534358 (5pp260)

hydrophilic materials are coated on at least one side with layers of modified cellulose ethers. The ether has been modified to 5 wt.% water insoluble but to be strongly water swellable. Webs can be produced other than by fleece or pad formation. Special fixing agents are required for the particles. The webs can be readily processed into bandages, medical supports, sanitary towels etc. which are comfortable to use.

D22 81356 Y/46 = DS 2618-613
Cell acetalised polyvinyl alcohol foam bandage - waterproofed by impregnating with melamine, silicone or acrylate resins or by chemical modification

MCA CHEM UNION GM 28.04.76-DE-618613
P34 + P42 (A14) (18.12.80) *DE2618-613 A611-15/07
6 as 618613 (4pp260)

Cell, acetalised polyvinyl alcohol foams made hydrophobic by chemical means or having hydrophobic surfaces are used as support materials. The foams are pref. made hydrophobic by (a) use of a melamine or (fluorinated) acrylate resin, (b) by condensing 5 wt.%, in the dry state, of a hydrophobic agent, (c) modification by introducing hydrophobic gps. such as 5-20C alkyl, aryl or alkylaryl. The foam is pref. acetylated with 5-20C aliphatic aldehydes or aromatic aldehydes.

Bandages readily absorb water, become flexible and can be dried. They can be dried rapidly and retain their usual desirable properties, such as hardness and rigidity.

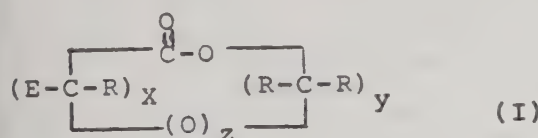
D22 48191 A/27 = DS 2758-216
Material for orthopaedic casts prodn. - by impregnating substrate with lactone monomer, catalyst and opt. vinyl polymer, then polymerising

ION CARBIDE CORP 28.12.76-US-755001
P34 + P32 (A18 A23) (18.12.80) *DE2758-216 A611-15/07
7 as 758216

Castings are produced by (A) impregnating a porous or permeable material with a mixt. of (a) a cyclic ester monomer (I), pref. epsilon-caprolactone, (b) 0.001-10 wt.% Al-tri-sec-butylate, (c) 0-45 wt.% vinyl monomers of mol. wts. 5,000-600,000 and (d) a filler or medicament and polymerising the ester. In (I) each R can be H, 1-12C alkyl or aryl or halogen, x and y are 1,2,3 or 4, z is 0 or 1, x + y + z is 4-7 and at least one of R different to H is 0-3.

The vinyl polymer is pref. a copolymer of vinyl chloride (VC)/OH-terminated methacrylate or VC/glycidyl methacrylate, a terpolymer of vinyl acetate and vinyl alcohol, polystyrene or polyvinyl alcohol.

Readily fitted orthopaedic bandages can be made with or without adhesive by applying the softened bandage to a body part by simply rolling it round the part and bonding the ends together under heat.



D22 67131 A/38 = GB 1581-905
Method for disinfection using antiseptic soln., esp. of respirators - using compressed air; monitoring water content in system

ST PASTEUR (GENT) 26.07.77-FR-023835 (12.05.77-FR-024)

(31.12.80) *BE-866-978 + A611-02/20

8 as 018935 (12pp963)

The disinfection process comprises (1) soaking a liq. absorbing element in an aq. soln. of antiseptic gas prod. in a hermetic enclosure, (2) passing an air flow through the enclosure and directing the flow onto the element to charge it with water vapour and antiseptic gas; and (3) treating material to be disinfected with this mixt., treating the air charged with a neutralising gas. The flow of air in the enclosure is automatically interrupted before exhausting of the enclosure.

The antiseptic is an isothiazolinone deriv., esp. a mixt. of 5-methyl-2-methyl-4-isothiazoline-3-one and 2-methyl-4-isothiazoline-3-one. The antiseptic may be mixed with a tracer comprising a known amt. of formaldehyde.

D22 29060 A/16 = GB 1582-060
Method for sterilising objects, esp. tape for beverage, e.g. milk, packaging - by passing through chamber contg. atomised sterilising agent and hot air through hot air chamber (NL 11.4.78)

TRA PAK INT AB 07.10.76-SE-011123
+ P34 (31.12.80) *DE2744-637 + A611-02

7 as 040574 (7pp1376)

The object is sterilised by exposure at a low temp in a closed chamber to a vapourised sterilising agent and a gas. The gas and agent are then passed in a further chamber and delivered to the closed chamber so that the agent condenses on the surface.

The agent is mixed with dehydrating hot air, pref 90-120 deg C, and atomised to a particle size of 5 to 15 microns. The agent is pref.

Milk packaging can be sterilised in a controlled manner.

KAOS ★ **D22** 00362 D/01 ★ GB 2049-553
Water absorbent embossed laminated sheet - comprising fibrous outer layers sandwiching polymeric absorbent layer

KA0 SOAP KK 09.05.79-JP-056562

A96 P73 (A35) (31.12.80) B32b-03/28 B32b-05/24

29.04.80 as 014098 (8pp525)

A water absorbent laminate comprises outer water absorbent fibrous layers e.g. of crepe paper, and a central layer of an absorbent polymeric material. The laminate is compressively embossed to form small areas of high embossment, surrounding areas of not so high embossment, and dispersed areas of no embossment.

Embossing is effected by a roller having spikes forming the highly embossed areas, flats to form not so highly embossed areas, and spaced recessed to form the non-embossed areas.

The laminate is strong and extremely absorbent and finds particular use in the medical field such as diapers, sanitary napkins etc.

KING ★ **D22** 00368 D/01 ★ GB 2049-620
Cover bag to enclose ostomy bag - and incorporating activated carbon to deodorise vented gases

KINGSDOWN MED CONSU 16.05.79-GB-017129

Q32 (31.12.80) B65d-30/02

16.05.79 as 017129 (3pp1358)

Bag is of woven or nonwoven material incorporating activated carbon particles or granules and pref. of carbon cloth as in GB1,301,101. A vent formed in an ostomy bag allows gases to escape through the cover bag which deodorises them.

The bag pref. has a rear wall cut-out for an ostomy bag coupling, also a top hood connected to or contiguous with the front wall and a pocket wall connected to or part of the front wall lower part and overlapping the rear wall without being connected to it. The bag may be made by conventional sewing and bias binding.

CADB ★ **D22** 00374 D/01 ★ GB 2049-661
Micro-biocidal bis-hydroxyalkylsulphonyl dihalomethane(s) - by halogenation of bis-hydroxyalkylsulphonylmetane(s)

CADBURY SCHWEPPE LTD 24.05.79-GB-018154

B05 C03 (31.12.80) A01n-41/10 A61k-31/10 C07c-147/02

24.05.79 as 018154 (4pp476)

Bis(hydroxyalkylsulphonyl)dihalomethanes the formula (I) HO-R-SO₂-CX₂-SO₂-R-OH are novel. R is 2-3Ckylene and X is halogen. (I) is specifically claimed where R is ethylene and X is Cl or Br.

(I) are microbiocides and possess bactericidal and fungicidal properties. In tests in vitro against E.coli, S.aureus, P.vulgaris and Ps.aeruginosa they exhibit minimum inhibitory concns. of 250-1000 ppm. (I) are water-soluble and may be made up into aq. solns. or other suitable compns.

COST ★ **D22** D/01 ★ IT 1047-855
Tampon for use in menstruation
COSTANTINI B G 12.05.64-IT-010394
P34 (20.10.80) A61m

KAOS **D22** 66785 X/36 = J8 0047-603
Germicidal, disinfectant, antiseptic compsn - contg. specified alkoxylated aliphatic amines plus metal chelating agent

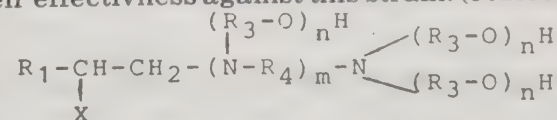
KA0 SOAP KK 25.02.75-JP-023283

C03 E16 P34 (01.12.80) *BE-838-720 A01n-33/08

25.02.75 as 023283 (14pp-)

A germicidal, disinfectant, and antiseptic compsn. comprises amine cpds. of formula CHX-CH₂-NR₂-(R₃-O)_nH or (II) together with an organic or inorganic cpd. capable of capturing metal atoms, (where R₁ is 8-18C alkyl or alkenyl, R₂ is H or 1-3C alkyl, R₃ and R₄ are 2-3C alkylene, X is H or OH, n is 1 or 2 and m is 0-2). The compsns. are used domestically, in water supplies to towns, and in industrial processes.

Cpds. of formula (I) and (II) have a wide anti-bacterial spectrum, are effective at lesser concn., have low toxicity and low surfactant power, but are not very effective against Pseudomonas. The combination with the inorganic or organic chelating agent greatly increase their effectiveness against this strain. (J51098324).



NISB **D22** 53266 B/29 = J8 0047-874
Sterilising plant growth medium by heating - with separate treatment of phosphate components to avoid scaling of appts.

JAPAN TOBACCO & SALT PUB 16.11.77-JP-136743

(02.12.80) *J54070-492 + C12m-03

16.11.77 as 136743 (6pp42)

Method for sterilisation of medium (I) for plant tissue culture,

comprises sterilisation of phosphate (II), which is a component in (I), separately from sterilisation of (I) by heating. The appts. used comprises (i) 3 vessels (III); (a) (I) contg. components other than (II); (b) contg. water and (c) contg. (II)-solution; (ii) a pump for sending them to heater for sterilisation and (iii) a heater.

When (I) is heated for sterilisation, pptes. and scale form in (I) and on the surface of heating surface. This is caused by the reaction between (II) and calcium and/or magnesium salts, and prevents this reaction. (I) is sterilised by (A) sterilising (I), contg. components other than (II), (B) washing the surface of steriliser with water, (C) sterilising (II)-soln. and (D) washing the surface of steriliser with water. (J54070492)

GENE ★ D22 00464 D/01 ★US 4237-559
Bone implant formed of high and low density ceramics - with dense core and porous layers on inside and outside to improve marrow growth and bone knitting

GENERAL ELECTRIC CO 11.05.79-US-038097
L02 P32 (09.12.80) A61f-01/03
11.05.79 as 038097 (7pp909)
A composite ceramic structure for use as a bone implant comprises two members, both of fired alumina, calcium aluminate, lanthanum aluminate or yttrium aluminate, one of which has a porosity of 20 vol.% or less and the other has a porosity of 20-65 vol.%.

The dense member is elongated and has an axial aperture, and the more porous member is disposed within this aperture and also contacts selected outer surfaces of the dense member. In the more porous member, at least some of the porosity is interconnected and the grain morphology is indicative of having undergone vapour transport action.

The dense member provides a strong structural core for the composite while the porous parts on the inside and outside encourage growth of new bone marrow and provide a base for bone and tissue attachment.

PERS D22 86106 A/48 = US 4237-591
Sanitary pad contg. perfume avoiding perfume migration - contg. narrow perfume contg. element inside absorbent body

PERSONAL PRODUCTS CO 23.05.77-US-799850 (05.02.79-US-009217)

A96 P32 + P34 (09.12.80) *BE-867-375 + D04h-05/08 D06b-03/02
05.02.79 as 009217 (6pp1376)

Absorbent products such as sanitary napkins are mfd. by suspending perfumed narrow strips above an endless air-pervious belt of a pad forming machine, and air-laying loose absorbent particles onto the belt and around at least one of the strips to form an absorbent body.

Pref. the strips are impregnated to give a perfume content of 0.2 to 0.8 g. per body. The strips may be woven or non-woven fabric, strings, or cellulosic.

Migration of liq. perfumes to undesirable areas of napkins is prevented.

MINN ★ D22 00501 D/01 ★US 4237-889
Diaper fastener with textured foil backing - of untensioned crystalline isotactic of polyolefin with alternating ridges and valleys

MINNESOTA MINING CO 13.09.78-US-942026 (14.10.77-US-842058)

A96 P32 (09.12.80) A61f-13/16

13.09.78 as 942026 (10pp295)

Diaper adhesive fastener is formed from a strip of sheet material having a coating of pressure-sensitive adhesive bonded to one face. The sheet material is an untensioned, tough, ductile foil of crystalline polypropylene or linear polyethylene having a fine grain crystal structure. Its thickness is 100 to 500 micrometers. The foil has one smooth face and one textured face with a pattern of ridges and valleys.

Some of the ridges extend at 60 deg. or less to the lateral edge of the closure tab. The fastener has a tensile strength at yield of 2.5 kg./cm. width. It has a stiffness value of no more than 5 g.cm. parallel to its long direction and 3 g.cm. perpendicular to this direction. It has a tear propagation value of at least 100 g. perpendicular to its long direction.

With the ridges running along the length of the fastener they block any continuous path of potential tearing and thus accidental tearing is minimised even when the edge of the fastener is nicked.

HRIN- ★ D22 00504 D/01 ★US 4237-912
Cleaning system for inhalation therapy etc. tubes - which are placed circumferentially in cylindrical basket and loaded into washing machine drum oscillated rotationally

H & R INC 08.11.78-US-958604

P43 (09.12.80) B08b-03/06 B08b-09 B08b-11/02

08.11.78 as 958604 (30pp295)

Tubes previously used for medical purposes e.g. anaesthetising and inhalation therapy are placed in a retaining basket within the drum of a washing machine. The tubes are placed so that their axes extend circumferentially. The washing machine is driven by a sequencer which takes it through a washing cycle in which the tub is filled with

a cleaning liquid. The drum is then oscillated angularly to the cleaning liquid through the tubes.

The drum is then emptied while the drum continues to oscillate, shake washing liquid from the tubes. Pref. the tubes are rotated by radial and vertical segments of the basket structure.

TIRI/ ★ D22 00536 D/01 ★US
Casting unitary tooth die and mounting pin - in single stage tapered pin with anchoring crosspiece

TIRINO A C 30.07.79-US-061679

A32 P32 (A96) (09.12.80) A61c-13 B29c-05

30.07.79 as 061679 (6pp1358)

A die and pin removable from a dental model are made by placing a flat divider with rectangular central opening over a tooth cast negative model, inserting a tapered pin through the opening, positioning the divider so that a pin top cross-member is located in the cavity, and pouring moulding material into the negative to form the pin to form tooth die and base in a single pour.

After hardening, the model is relieved through the base on the side of the pin about the width of the tooth down to the divider, the die can be removed. The method eliminates the conventional two-stage casting. The assembly of parts is claimed.

MALA- D22 44493 B/24 = US 4
Corrosion inhibiting compsn. contg. amino carboxylic acid and second nitrogen-contg. cpd., esp. for use in petroleum processing e.g. recovery and transport in pipelines

MALACO AG (KEMA) 16.11.77-SE-012957 (16.11.77-SE-012957)

E19 H01 M14 + Q49 (H03) (09.12.80) *GB2009-133 C23 + E21b-43/22

09.11.78 as 959083 (5pp977)

Corrosion of metals in contact with liq. systems is prevented by adding amino carboxylic acid formula $RR(1)N(CH_2)_nCOOH$ where R is mono-, di- or polyamines, (b) mono-, di or triamines, (c) ammonium cpds., (d) morpholine, (e) cyclohexylamine, imidazole cpd. In (a)-(c) there is at least one at least 6C or hydrophobic gp. In the formula, R is 6-22C organic hydrophobic gp. R(1) is H, 1-4C alkyl or aryl, and n is 1-10 (1-5).

Method is partic. used for preventing corrosion in oil recovery in petroleum industry.

BETT- D22 08099 B/05 = US 4
Steam steriliser for hospital use - with outer jacket supplied with steam at two pressures under temp. control

BETTER BUILT MACH 29.12.76-US-755440 (31.05.78-US-911281)

P34 (09.12.80) *CA1046-229 A611-02/06

31.05.78 as 911281 Div ex 4108601 (11pp1376)

Hospital and laboratory equipment is sterilised by pre-heating an enclosed chamber using a steam jacket, placing the equipment in the chamber, interconnecting the chamber and jacket, introducing steam at a higher pressure to the chamber and when the temp. drops below a determined level.

Pref. steam is used at pressures of 15 and 35 to 40 psig in the stages. At the end of sterilising, the jacket and chamber are disconnected and the chamber is evacuated. Equipment is sterilised at a variety of temps.

KANS- ★ D22 00667 D/01 ★US 4
Homogeneous resin-poly-iodide disinfectant - prepd. by reacting water through iodine to anion exchange resin in iodide form

KANSAS STATE UNIV R 20.04.79-US-031920

A97 P34 (09.12.80) A611-02/16 C02f-01/42

20.04.79 as 031920 (8pp928)

A homogeneous resin-polyiodide disinfectant contg. polyiodide prepd. by (a) converting strong base anion exchange resin to the iodide form; (b) placing the equiv. amt. of crystalline iodine in reaction with the iodide in a separate dissolver; (c) recycling the iodine sequentially through the iodine and then the resin to carry dissolved iodine for absorption by the resin; and (d) continuing until a desired level of iodine is absorbed by the resin to form polyiodide.

The disinfectants can be produced on an exact stoichiometric basis with no tendency for the iodine to deposit on the outside of the beads.

FRAZ/ ★ D22 00669 D/01 ★US 4
Antimicrobial compsn. prodn. from natural flavanoid glycoside partial hydrolysis in acid medium

FRAZIER S E 19.07.79-US-058810

E13 (09.12.80) A61k-31/70 C07h-15 C07h-17

19.07.79 as 058810 (6pp914)

Prodn. of an antimicrobial compsn. comprises (i) forming a mixture of a flavanoid glycoside of formula $-Y-O-Z$ with an acid which is stronger acid than (I) (where X is a flavanoid aglycone moiety; glucose or rhamnose gp.; and Z is H when Y is a rhamnose gp. or a glucose gp. when Y is a glucose gp.); and (ii) maintaining the mixture under quiescent conditions at 60-100 deg.C for sufficient time to provide a partially hydrolysed flavanoid compsn. which is different from either flavanoid glycosides or flavanoid aglycones.

D13 US4238344

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

HENK **D25** 26084 W/16 = DS 2349-293
Cleansers and detergents with disinfectant activity - contg. anion-
active 2-hydroxy-4-thia- or 2 hydroxy-4-aza-alkane sulphonates and
cation- active surfactants

HENKEL KG AUF AKTIEN 01.10.73-DE-349293
E12 (18.12.80) *DE2349-293 C11d-01/65

01.10.73 as 349293 (5pp068)

A washing agent with improved disinfecting properties contains
anionic and cationic surfactants in the wt. ratio 20:1 to 3:1 (10:1 to 4:1).
The anionic surfactant comprises at least one cpd of formula R-CHY-
CH₂-X-CH₂-CH(OH)-CH₂-SO₃Me (where R is 6-14C alkyl or alkenyl; S
NR', R'-NO, S or SO; R' is methyl, ethyl, H₂CH₂O)n-H or
(CH₂CH(CH₃)O)n-H, Y is H or OH, n is 1-4 and Me the valency of
an alkali (ne earth) metal, ammonium or an organic ammonium
base) e.g. a sodium salt of a 2-hydroxy-4-thioalkane sulphonic acid.
The cationic tenside is a capillary active ammonium cpd. pref. a
cpd. such as stearyl-dimethyl-benzyl ammonium chloride.

A builder such as a polyphosphate, carbonate, silicate,
polycarboxylic acid or polyphosphonic acid alkali salt is pref.
present.

PROC **D25** 15919 A/09 = GB 1582-039
Dry stable bleaching compsn. - contg. peroxy acid and cpd.
releasing water on heating e.g. boric acid

PROCTER & GAMBLE CO 27.08.76-US-718282
E19 F06 (31.12.80) *BE-858-144 D061-03/02

26.08.77 as 035956 (8pp974)

Novel dry granular bleach compsns comprise a peroxy acid cpd.
which is a (salt of a) water-soluble acid, and a nonhydrated material
which will start to release water by chemical decomposition at
below the decompn. temp of the acid.

The nonhydrated cpd is present at least 50 wt% (w.r.t the acid) and
is sufficient to release 200-500% water (w.r.t O released by the acid).

Compsns. have improved exotherm control.

MATT- **D25** 06746 A/04 = GB 1582-130
Recovering traces of platinum gp. metals from waste solns. - by
anodic oxidn., cathodic redn., and repeated anodic oxidn.

MATTHEY RUSTENBURG 13.07.76-GB-029093
M28 X25 (31.12.80) *DE2731-698 C25c-01/20 + C02f-01/46 C25b-01
13.07.77 as ----- (4pp945)

Platinum gp. metal present as a stable complex or cpd. in aq.
effluent soln. is recovered electrolytically after adjusting the soln. to
pH 10 or more. Electrodes of Ru, Rh, Pd, Ir, Pt or their alloys or
graphite are used with anode potential having a half cell voltage of
5.5V or more NHE, overall cell coltage 8V or more and current
density at least 0.2 A/cm².

The soln. may be pretreated to effect a preliminary removal of the
metal. Pref. the process is effected at above 60, pref. 75-80, dec.C.
The metal may be recovered as pptd. oxides, hydrated oxide, or
hydroxide and/or as cathodic metal deposit. Even traces of Pt gps.
metals can be recovered and total metal concn. in the treated soln. is
less than 1 ppm.

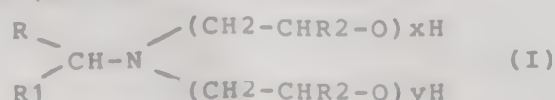
HENK **D25** 08288 A/05 = GB 1582-200
Conc. liquid cleaning compsns. for washing contg. enzymes - with
alkoxylated alkylamine as enzyme stabiliser

HENKEL KG AUF AKTIEN 27.07.76-DE-633601
A97 E16 (A25 D16) (31.12.80) *BE-857-144 C11d-03/30 + C11d-
10/02

26.07.77 as 031214 (10pp954)

Liq. concentrates, usable as a washing and cleaning agent,
comprises an enzyme prepn. contg. a protease and/or amylase, a
non-ionic and, opt. an anionic surfactant, water and, opt. a solvent
e.g. alcohols, diols and ethers, and relative to 1 pt.wt. of enzyme
prepn. of activity 10-10,000 SKB per g. amylase or 1,000-1,500,000 PE
per g. protease; 2-500 pts.wt. of an alkoxylated alkylamine of
formula (I).

In (I) R is 4-19C alkyl; R₁ is H or 1-10C alkyl, with the proviso that
the total number of C atoms in R plus R₁ is 9-19; R₂ is H; or
(hydroxy)-methyl gp.; x is 1-5; and y is 0,1-5, with x plus y equal to 1-
10. The addn. of (I) stabilises the concentrate.



JOHS **D25** 57293 C/33 = US 4
Stable aq. hydrogen peroxide bleach compsn. - contg. o
phosphoric or boric acid, nitrogen-contg. cpd. and dye or brigh

JOHNSON S C & SONS INC 22.01.79-US-005127
E36 (09.12.80) *EP-13-886 C11d-03/39 D061-03/02

22.01.79 as 005127 (8pp982)

Stable aq. bleach compsn. comprises (a) 2-12 (2-6) wt.% hy
peroxide; (b) 0-20 (0.5-8) wt.% of an organic acid, phosphor
and/or boric acid; (c) 0.05-10 (0.5-1.5) wt.% of at least one
amino acid; (d) 0.0001-1 wt.% of a dye and/or optical brightene
(e) water.

Pref. amino acid is methionine and/or glycine and the o
acid is adipic acid, phthalic acid or citric acid.

Compsn. is used as a laundry bleaching prod. which contains
which does not adversely build-up on laundry after re
washing.

ECON **D25** 86445 B/48 = US 4
Stabilised liq. enzyme-contg. detergent compsns. -
antioxidant and an organic hydrophilic poly:ol

ECONOMICS LAB INC 22.05.78-US-908505
(D16) (09.12.80) *GB2021-142 C11d-03/38

22.05.78 as 908505 (12pp977)

Stabilised, liq. enzyme-contg. detergent compsn. consists of (a)
wt.% of water, (b) proteolytically effective amt. of prote
enzyme uniformly distributed and having original activity 10
casein units per gram, (c) 1-70 wt.% of detergent chosen from a
and/or nonionic surfactants, and (d) 0.5-30 wt.% of water-dispe
stabilising system for the enzyme.

The system comprises the combination of (1) 0.1-5 wt.% of
dispersible antioxidant having single electrode potential, 1
deg.C, for the oxidn. of the antioxidant to an oxidised species,
is at least equal to that of ascorbic acid but less than that of so
hydrosulphite, where the antioxidant is a water-soluble metal
an oxidisable, oxygenated sulphur anion, (2) 1-25 wt.% of an or
hydrophilic water -soluble free water-reducing polyol h
mol.wt. less than 500 and contg. 2-6 hydroxyl gps., and (3) buf
amt. of weak base for maintaining the pH of the compsn. at
and for preventing spontaneous downward shifts of the compsn.
shifts would result from the spontaneous oxidn. of the anion.

The compsn. is partic. useful in methods for rem
proteinaceous soils from fabric.

MIZA **D25** 38465 Y/22 = US 4
Alkali alumino-silicate zeolite detergent builder - prepd.
smectite clay and having alkali buffer and metal ion
properties

MIZUSAWA KAGAKU KK 13.10.76-JP-121795 (18.11.
137814)

A97 (09.12.80) *DE2652-409 C01b-33/28 C11d-03/12 + B01.
C02b-01/44

17.04.78 as 896767 Div ex 4102977 (+12.11.76-US-741365) (27.11.
141141)

Detergent compsn. comprises (A) 1 to 99 wt.% of at lea
surfactant selected from the anionic, non-ionic and amph
surfactants and (B) 1 to 99 wt.% water-insoluble alkali
aluminosilicate builder. The alkali metal aluminosilicate b
consists of an inorganic fine powder composed mainly of
metal aluminosilicate having an X-ray diffraction pattern the
as that of zeolite of type A and having a degree of crystallisatio
to 75%.

The inorganic fine powder has (I) a max. prim. particle
smaller than 1 micron and such a sec. particle size distributio
all particles of the fine powder are smaller than 4 microns, the
prim. particle size being expressed by the max. length a
lengths of edges of cubic particles measured by electron micro
and sec. particle size distribution being measured accordi
Stokes' law, (II) a buffer capacity (S) of at least 132 ml/100 g of
an initial buffer capacity (R) of at least 35 ml/100 g of solids a
effective alkali content of 2 to 8 wt. % based on inorgani
powder, buffer capacity (S), initial buffer capacity (R) and eff
alkali content (Qc) being respectively expressed by an amt. c
necessary for lowering the pH of a 1% aq. dispersion of inor
fine powder from 9.0 to 6.75, an amt. of HCl necessar
lowering the pH of the dispersion from 9.0 to 8.0 and alkali, as
equivalent to an amt. of HCl necessary for lowering the dispers
6.75 when the dispersion is titrated with 0.4 N HCl at a rate of 2

(III) a calcium ion binding property (C.I.) of 90 to 160 mg/g (as IV) a suspension pH of 9.5 to 12, (V) such a suspension stability when a 0.05% aq. suspension of the inorganic fine powder is left to stand still, the sedimentation speed is lower than 4 cm/hr, (VI) Methylene Blue-adsorbing capacity, (VII) an oil absorption of not less than 45 ml/100 g of the powder and (VIII) an interfacial electric resistance characteristic that when it

D25

68458 B/38 = US 4238-373

of intimate mixt. of N-based cationic surfactant - and water-dispersible cpd., by quaternising tert. amine in liq. medium constitutes cpd., using volatile quaternisation agent

OCTER & GAMBLE CO 07.03.78-GB-008989 (06.03.78-GB-778)

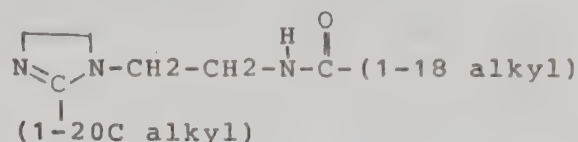
E19 (09.12.80) *EP---4-108 C11d-01/62

as 017209 (8pp965)

tion of a solid mixt. of a nitrogenous cationic surfactant and a soluble or dispersible organic component comprises (a) reacting a t-amine with a quaternising agent in the liq. organic medium. 1 of the t-amine and quaternisation reactants has a b.pt. at atmospheric pressure of 200 deg.C or less and is present in excess. Reaction is carried out at less than 50 deg. C to form the product while avoiding colour body formation. (b) the prod. mixt. is heated at 200 deg.C or less to remove excess reactant leaving a mixture of organic component and surfactant in a ratio of 50:1 to 1:2. The mixt. is then cooled.

t-amine has structure (R')(R)NR or (I). R' is 1-22C alkyl opt. in addn. up to 20 ethoxy gps. R and R can be the same as R' or independently benzyl or 1-4C (hydroxy)alkyl. Not more than 1 gp. molecule may be benzyl. The quaternising agent is 1-4C alkyl epoxide, 2-4C alkylene oxide, 12-14C alkyl bromide or 10-18C alkyl chloride. The organic component has a molecular wt. larger than 240 and is (i) fatty alcohol mixt. contg. on average more than 20% or (ii) polyethylene oxide condensates of 10-20C alcohols,

10-18C fatty acids, 6-12C alkyl phenols and 10-18C fatty acid esters of sorbitan.



UNIL ★

D25

00692 D/01 ★ US 4238-531

Additive compns. for tumbler-dryers - contg. ammonium carbonate, quat. ammonium salt, alcohol ethoxylate, or carboxylate acid as distributing agent

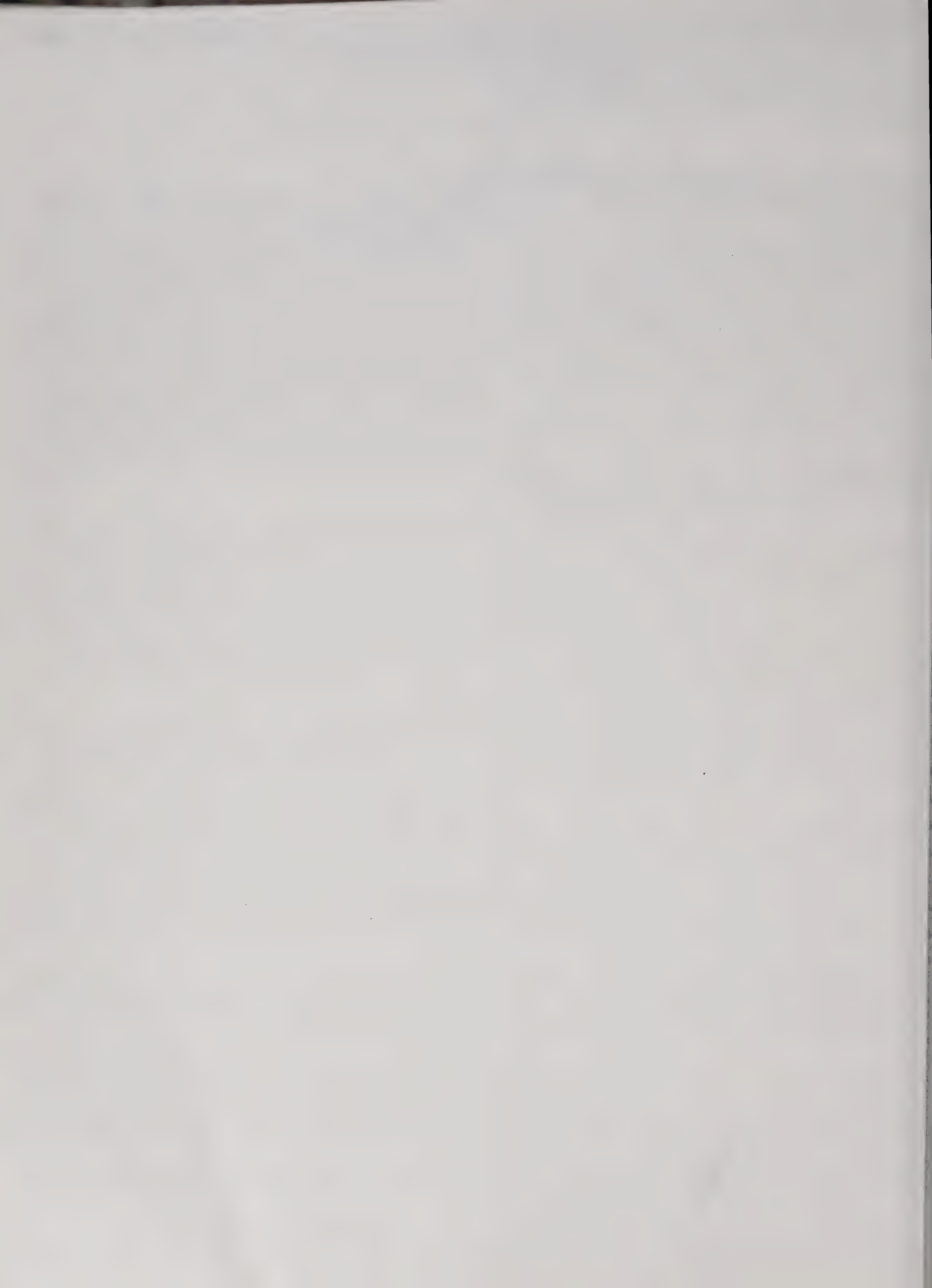
LEVER BROTHERS CO 21.11.77-US-853663 (29.06.71-US-158006)

A97 E35 P42 (E19) (09.12.80) B05d-03/12

21.11.77 as 853663 (+ 5.7.73, 24.6.75-US-376586, 589993) (7pp478)

Compsns. for applying a variety of adjuvants (I) to fabrics consist of: (a) not greater than 95% by wt. of (I) (by wt. of (I) and (II)); and (b) a distributing agent (II). The compns. are contained in or on suitable means for applying them to fabrics. (I) is a fabric softener, optical brightener, antistatic agent, stain repellent, soil release agent, wrinkle preventative, deodoriser, freshener, cleaning agent, surfactant, moth proofing agent, or bleaching agent.

(II) is (NH₄)₂CO₃; a quat. NH₄ cpd. 2R₇R₈R₈)yX (R₂ is 1-4C alkyl; R₇ is 10-14C alkyl; each R₈ is R₂ or R₇; X is anion imparting H₂O dispersibility; y is valency of X) condensates of alkyl alcohols and ethylene oxide which melt at dryer temps.; or lower mol.wt. innocuous carboxylic acids which promote the spreading of the adjuvant. Incorporation of (II) into the compsn. improves the uniformity of the distribution of (I).



EN 01.12.77 AGENCY OF IND SCI TECH A96 B04 D16 F01 (A14) = J8
7-130
mmobilised enzyme fibre prodn. - 88389B/49
RO-12.02.79 AGROKEMIA SZOVET C03 D13 #CS 7900-937
eedstuff, esp. feed concentrate prodn. - 60623C/35
N 01.04.77 AJINOMOTO KK D13 E12 = J8 0047-877
Di:sodium 5'-guanylate and di:sodium 5'-inosinate mixed crystal prepn. -
8571A/49
N 02.04.79 AJINOMOTO KK B05 D16 E16 = GB 2049-670
-threonine prodn. by fermentation of *Escherichia coli* strains - 77301C/44
N 03.04.79 AJINOMOTO CO INC B05 D16 = GB 2049-703
Di:peptide prodn. in presence of immobilised protease - 73469C/42
E 19.12.77 ALBERTO CULVER CO D21 *US 4238-509
Cosmetic creme contg. fine oat flour - 00680D/01
R 06.05.80 BUSH BOAKE ALLEN LT D23 E13 = GB 2049-422
Di:hydro:pyran and dioxan cpds. for perfumery compsns. - 83069C/47
X-04.07.79 ALEXANDERWERK AG D12 X25 *DS 2926-975
Meat cutter and mixer - 00319D/01
A 20.04.78 ALFA-LAVAL AB D13 = US 4237-781
Gravity pressure extrusion to mfr. blocks of cheese from curds -
64736B/36
HA/ 15.06.79 ALHAUSER E D15 J04 S03 *DE 2924-048
Electric conductivity monitor for highly purified water - 00132D/01
U 04.05.79 AKZO NV A88 D15 J01 (A25) = GB 2049-544
Polyurethane ultrafiltration membrane for oil sepn. from water -
65967C/38
C 09.08.79 ALLIED CHEMICAL CORP D15 E33 *US 4238-347
Storage stable amorphous poly:aluminium sulphate(s) - 00611D/01
I-20.06.75 ALL INDIA INST MED B04 D16 *IT 1047-755
Contraceptive vaccine prepn. - D/01
CY 30.06.76 AMERICAN CYANAMID CO B03 C02 D16 = CS 7704-257
Anticoccidial antibiotic BL 580 delta - 02059A/02
SA 05.06.79 AMERICAN STERILISER CO D22 S05 T06 *DE 3014-549
Sterilising apparatus control - 00215D/01
IS 03.01.78 ANIC SPA B05 D23 E17 = DS 2852-587
Methyl-heptenone prepn. for use as terpene intermediate - 45685B/25
TI-10.12.75 INTR ANTIBIOTICE B04 D16 *RO --67-001
Griseofulvine purification from mycelium or crude prod. - D/01
AH 17.09.73 ASAHI KASEI KOGYO K A88 D16 E37 J01 (A97 D13) = DS
4-947
Filter for absorbing polyphenols from wines, beers - 21382W/13
I= 29.05.78 AS USSR BIOORG CHEM A96 B04 D16 = GB 2049-700
Stabilisation of immobilised proteins - 01727C/01
R 02.10.75 ASTRA EWOS AB C03 D13 #IT 1047-676
attle fodder contg. urea - 72769W/44
O-07.06.79 ATMOS LEBENSMITTEL D14 *DE 2923-100
Food tins charging station - 00040D/01
E-15.06.79 AVTEX FIBERS INC A11 D22 F01 (A96) #DE 2924-297
Blended rayon fibres of high liquid retention - 75346B/42
W 22.07.77 BABCOCK & WILCOX CO D15 E36 J01 K05 = DS 2830-972
Electrodialysis and ion-exchange treatment of ionised soln. - 82185A/46
I 09.08.76 BASF AG B05 C03 D13 E24 (D21) = GB 1582-042
Electrochemical prepn. of symmetric carotenoid(s) - 12264A/07
I 19.11.77 BASF AG C03 D13 = CS 7807-494
Feedstuff additive for monogastrones e.g. piglets - 40773B/22
06.09.78 BASF AG C03 D22 E14 G02 = CS 7906-014
I-Tri:halo:sulphenyl formamide derivs. - 20583C/12
15.06.79 BASF AG B03 C01 D22 E11 *DE 2924-150
Fluoro-2-pyridyl-thio- and di:thio-phosphate derivs. - 00151D/01
P/10.12.79 BALSAREK J D18 *CS 7908-572
mulation of leather equipment conveyor delay - D/01
A/05.05.79 BARNES R I D25 = GB 2049-722
eaning compsns. contg. petroleum distillate and surfactant - 82886C/47
V/25.09.79 BARTON M D16 *CS 7906-458
ary washing head - D/01
V/12.12.79 BARTAK L D15 *CS 7908-676
ater purificn. and treatment appts. - D/01
V/10.09.79 BAUERS D16 *CS 7906-131
phovite microorganisms cultivation unit - D/01
A-14.06.79 BAUMGARTNER PAPIERS D18 E33 = DE 3021-668
avouring cigarette smoke - 75361C/43
15.05.78 BEATRICE FOODS CO D13 #GB 1581-906
ibiliser, thickening agent etc. for food - 21993B/11
16.05.75 NATURIN-WERK BECKER A35 D12 (A97) = CS 7603-173
-softening tie zones on sausage skin ends - 88810X/48
10.10.78 BECTON DICKINSON CO D16 *US 4238-568
ler bottle for cell culturing - 00707D/01
28.09.74 BEECHAM GROUP LTD B06 D21 = IT 1047-589
i caries compsn contg. fluorine cpds - 28298X/16
31.07.79 BELIK E D16 *CS 7905-289
illus licheniformis CCM 3403 microorganism strain - D/01
27.02.74 GEBR BELLER MASCH D15 J01 = J8 0047-928
moval of liquids from sludges - 59038W/36

BETT- 31.05.78 BETTER BUILT MACH D22 = US 4238-447
Steam steriliser for hospital use - 08099B/05
*BIEL/ 13.08.79 BIELY P B04 D16 *CS 7905-504
Extracellular prodn. of endo-1,4-beta-xylanase - D/01
BIOG- 07.05.79 BIO-GAS COLORADO IN D15 = GB 2049-649
Animal waste treatment system - 48022C/27
BIOT- 01.05.79 BIOTEKN INST D13 J04 S03 (D16) = DK 7901-788
Prophylactic determination of food putrefaction - 86357C/48
BOEF 09.06.76 BOEHRINGER MANNHEIM GMBH B04 D16 J04 S03
(S05) = CS 7703-018
Substrates compsn. or enzymatic activity evaluation - 81194Y/46
BOEF 04.04.79 BOEHRINGER MANNHEIM GMBH B04 D16 = FI 8001-
025
Enzymatic analysis reagent - 73668C/42
BOEF 10.04.79 BOEHRINGER MANNHEIM GMBH A96 B04 D16 = FI
8001-111
Removal of ascorbic acid from aq. solns. - 77368C/44
BOEH 22.03.79 BOEHRINGER INGELHEIM B04 D16 = FI 8000-743
Cholesterol esterase enzyme activation in ionic soln. - 71667C/41
BOLI 23.03.79 BOLIDEN AB D15 F09 = FI 8000-837
Solid, non-dusting flocculating agent - 77574C/44
*BORY/ 31.01.80 BORYSEK V D14 *CS 8000-648
Onion peeling and cutting appts. - D/01
BRAU- 09.04.79 BRAUPATENT UNIV AG D16 = FI 8001-104
Beer brewing vat - 77579C/44
BRIM 02.04.79 BRISTOL MYERS CO B02 C02 D16 (D13) = FI 8000-973
Antitumour antibacterial complex BBM-928 and individual components -
73461C/42
BRPE 01.11.76 BRITISH PETROLEUM LTD A97 D15 H01 = US 4238-331
Filtration of sea water, esp. for secondary oil recovery - 24106C/14
BRTK/ 17.04.79 BRTKO J C02 D16 = CS 7902-571
5-Acetoxy-2-acetoxymethyl-4-pyrone insecticide - 79138C/45
BUCH 07.04.76 BUCHERGUYER MASCH D14 = CS 7702-188
Fruit juice extractor with rotatable receptacle - 77794Y/44
*BULT/ 24.05.79 BULTMAN L E D15 *US 4238-336
Diffuser for waste sludge treatment - 00605D/01
*BYDG- 05.06.79 BYDGOSKIE BIURO PRO D15 *DE 3009-707
Compact treatment system for water or sewage - 00214D/01
*CADB 24.05.79 CADBURY SCHWEPPE LTD B05 C03 D22 *GB 2049-661
Micro-biocidal bis-hydroxyalkyl:sulphonyl di:halomethane(s) -
00374D/01
CALP- 17.12.70 CALPIS FOOD IND CO D13 = IT 1047-892
Sour milk drinks - 43164T/27
CASS 23.12.77 CASSELLA AG A87 D18 E19 F06 = CS 7808-844
Compsn. for treating cellulosic textiles and leather - 49263B/27
CELF- 11.08.77 CELFIL CO D18 F09 = CS 7805-242
Mfr. of paper band for cigarette filter tips - 89704A/50
CHEM- 08.07.75 CHEMBIOMED LTD B04 D16 S03 S05 = US 4238-473
Beta glycoside derivs. for coupling to carriers - 06114Y/04
CHFS 29.03.72 CHEM FAB STOCKHAU D18 = J8 0047-080
Leather nourishing compsn - 54165U/37
CIBA 24.02.78 CIBA GEIGY CORP A97 D15 (A26) = US 4238-328
Elimination of heavy metal ions from waste waters - 63162B/35
*CLUJ- 26.01.74 CLUJEANA COMB PIELA D18 S03 *RO --67-777
Elongation and tearing resistance meter for animal skins - D/01
COLG 03.06.71 COLGATE PALMOLIVE CO A96 D21 = DS 2226-401
Toothpaste - 79851T/50
COLG 31.10.74 COLGATE PALMOLIVE CO D22 = IT 1047-720
Disposable baby's nappy with elastic belt and adhesive band - 26477X/15
COLG 31.10.74 COLGATE PALMOLIVE CO A96 D22 = IT 1047-721
Disposable diaper with pleat securing tape - 82924W/50
COLG 31.10.74 COLGATE PALMOLIVE CO D22 = IT 1047-736
Disposable diaper with elastic loop - 81151W/49
COLG 19.05.78 COLGATE PALMOLIVE CO A96 D21 E19 (A25) = US
4238-476
Transparent gel dentifrice of specified compsn. - 71735B/40
COLG 18.05.79 COLGATE PALMOLIVE CO B05 D21 E19 = GB 2049-421
Oral hygiene composition contg. peroxy:di:phosphate - 69592C/40
*COMP- 19.12.75 INTR COMPONENT ELTR D15 L03 M11 *RO --66-955
Nickel plating waste water purification - D/01
CORP 15.12.78 CPC INTERNATIONAL INC D17 = US 4237-619
Fluidising raw material e.g. starch in vertical container - 74024C/42
*CORP 23.05.79 CPC INTERNATIONAL INC D17 (D16) *GB 2049-698
Non-crystallising dextrose-maltose syrup prodn. - 00377D/01
*COST/ 12.05.64 COSTANTINI B G D22 *IT 1047-855
Tampon for use in menstruation - D/01
CROA/ 28.06.79 CROASDELL D F D12 #US 4237-580
Separating the cheek muscles of a pigs head - 63417B/35
*CURI/ 03.10.79 CURIK A D18 *CS 7906-681
Leather waste processing method - D/01
CWMB 04.04.79 CHEM WERKE MUNCHEN D25 E12 = FI 8000-904
Prod. of fatty acid soaps in granular form - 79208C/45
*DAGN/ 08.06.79 DAGNESE R D18 *BR 7903-917
Lower supporting cylinder raising mechanism control - D/01
DAIE 28.03.79 DAINICHI NIPPON CABLES D15 E32 M25 = GB 2049-733
Gold cyanide, and opt. silver cyanide, recovery from liquid - 73853C/42

DEDE

- *DEDE/ 25.07.77 DEDEK M D13 (D16) *CS 7704-923
Microbial rennet prepn. - D/01
- *DEDE/ 15.09.77 DEDEK M D13 *CS 7706-005
Soured dairy products prodn. - D/01
- *DEDE/ 11.09.79 DEDEK M D13 (D16) *CS 7906-144
Rennet products prepn. from inorganic materials - D/01
- DEER- 02.05.79 DEER PARK BAKING CO D11 = BR 8002-634
Cookie mfg. appts. with transfer conveyor - 80648C/45
- DEER- 02.05.79 DEER PARK BAKING CO D11 = DK 8001-726
Cookie mfg. appts. with transfer conveyor - 80648C/45
- DEGS 16.05.72 DEUTSCHE GOLD & SILBER D15 E34 (D12 E35) = RO --65-488
Air and water purificn - 65215U/43
- DEGS 16.03.74 DEUTSCHE GOLD & SILBER A97 C03 D13 E17 (D22 E12) = CS 7501-241
Animal feed preservatives contg. (meth)acrylic acid - 64177W/39
- DEGS 26.09.74 DEUTSCHE GOLD & SILBER D15 E17 = IT 1047-959
Removing formaldehyde from waste water - 26476X/15
- DEGS 02.05.79 DEGUSSA AG D15 E36 J03 S03 = DK 8001-799
Measuring concn. of dissolved cpds. - 80714C/46
- DEGS 02.05.79 DEGUSSA AG D15 E36 J03 S03 = GB 2049-951
Measuring concn. of dissolved cpds. - 80714C/46
- DFOR- 06.04.79 DE FORENEDE BRYGGER A96 B04 D16 = FI 8001-035
Prepn. of peptide(s) - 77016C/43
- *DITT/ 29.12.79 DITTRT F D16 *CS 7909-557
Continuous cultivation of autotrophic microorganisms - D/01
- DOUG/ 30.06.76 DOUGLAS D A97 B07 D13 = GB 1581-841
Edible fibrous cellulose coated with edible gum - 04723A/03
- DOWO 29.03.79 DOW CORNING CORP A96 D22 = BR 7908-596
Protector for flexible bone joint prosthesis - 32518C/18
- DOWO 07.06.79 DOW CORNING CORP A96 D21 = DE 2940-909
Anti-perspirant emulsion compsn. - 34603C/20
- *DPON/ 15.06.79 DA PONTE BECHER B D14 *DE 2924-199
Ice cream portion scoop - 00162D/01
- DREW 25.04.79 DREW CHEMICAL CORP A97 D15 E13 M14 (A14) = BR 8002-533
Corrosion inhibiting compsn. for aq. systems - 64217C/37
- *DUDE- 21.07.76 DUDESTI INTR CHIM D22 E24 *RO --67-432
Crystal violet prepn. - D/01
- DYNL 25.10.72 DYNAPOL A97 D13 = IT 1047-950
Flavouring agents - 17383V/10
- ECON 22.05.78 ECONOMICS LAB INC D25 (D16) = US 4238-345
Stabilised liq. enzyme-contg. detergent compsns. - 86445B/48
- EGRE/ 26.05.77 EGRETIER M D16 = US 4238-511
Winemaking maceration process of the carbonic type - 16329B/09
- *EIIC- 06.03.75 EIICHI ARAKAWA D15 *J8 0047-922
Device for purifying water - 00446D/01
- ELIL 01.02.73 ELI LILLY & CO B04 C03 D13 (D16) = RO --64-564
Poultry and cattle food additive - 59392V/33
- ELIL 24.05.76 ELI LILLY & CO B05 D16 = CS 7703-396
Antibiotic (A-35512 B) aglycone - 45173Y/25
- ELIL 08.12.77 ELI LILLY & CO B03 C02 D16 = CS 7808-006
Antibiotic A-40104 fraction A - 93172A/51
- ELIL 08.12.77 ELI LILLY & CO B03 C02 D16 = CS 8000-429
Antibiotic A-40104 fraction A - 93172A/51
- *ENEAL/ 15.06.79 ENEAL D13 *DE 2924-242
Non-alcoholic fresh milk ultrafiltration permeate drink - 00165D/01
- EWOS 02.04.79 EWOS AB A96 B04 C03 D22 = FI 8001-026
Iodophor containing udder disinfectant - 77575C/44
- FARB 09.10.74 BAYER AG A82 D18 F08 G02 (A25) = IT 1047-719
Coating leather and plastic surfaces - 32166X/18
- FARB 22.03.79 BAYER AG C03 D22 E17 = FI 8000-873
Microbicidal agents for use as disinfectants - 71715C/41
- *FARB 08.06.79 BAYER AG B02 C02 D13 E13 *DE 2923-339
6-Acylamino-penicillin-1,1-di:oxide derivs. - 00056D/01
- FARH 07.10.74 HOECHST AG A97 D12 (A11) = IT 1047-698
Cellulose hydrate sausage casings - 30141X/17
- FARH 07.10.74 HOECHST AG A11 D12 (A88 A92 A97) = IT 1047-700
Thermoplastic material based on modified protein - 30352X/17
- FARH 07.10.74 HOECHST AG A11 D12 (A88 A97) = IT 1047-708
Thermoplastic material based on modified protein - 30354X/17
- FARH 07.10.74 HOECHST AG A11 D12 (A32 A88 A97) = IT 1047-709
Moulded bodies from modified albumin - 30353X/17
- FARH 09.10.74 HOECHST AG D25 E11 = IT 1047-684
Phosphate ester- and alcohol-contg. cleaning compsns. - 30361X/17
- FARH 01.08.75 HOECHST AG A94 D22 F09 (A11 A96) = DS 2559-606
Hydrophilic strip material coated with modified cellulose ether - 29417Y/17
- FARH 27.07.76 HOECHST AG C03 D13 E35 = CS 7704-982
Treating microbial cellular mass with ammonia and alcohol solvent - 08318A/05
- FARH 05.02.77 HOECHST AG D21 E33 = DS 2704-850
Dissolving basic aluminium chloride cpds. in absolute ethanol - 58958A/33
- FARH 19.09.77 HOECHST AG D15 E19 M14 = CS 7806-030
Anticorrosion compsn. for ferrous metals - 22078B/12
- FARH 30.03.79 HOECHST AG A97 D12 = FI 8000-944
Sausage-packaging hollow rod assembly - 73745C/42
- FARH 24.04.79 HOECHST AG B02 D16 (B04) = GB 2049-681
Cephalosporin derivs. with chromophore substit. at 3-posi
79272C/45
- *FARH 08.06.79 HOECHST AG A97 D12 *DE 2923-187
Protective netting for hollow sausage skin rods - 00045D/01
- *FARH 08.06.79 HOECHST AG A97 D12 *DE 2923-188
Sausage skin support sleeve - 00046D/01
- *FARH 09.06.79 HOECHST AG A14 D22 F01 *DE 2923-430
Insoluble swellable crosslinked etherified polyvinyl deriv. pro
00061D/01
- FAZE- 03.04.79 OY FAZER K AB D11 = FI 7901-101
Transporter for biscuit icing process - C/47
- FERR- 01.06.79 FERROKEMIA IPARI SZ A96 B03 D21 E13 = GB 2049-4
Compsn. used as cosmetic prod. e.g. shampoo, ointment - 56909C/3
- FIAT 11.09.75 FIAT SPA A88 D15 J01 (A14) = IT 1047-997
Vinyl chloride-vinyl alcohol membranes for reverse osmosis - 42110
- FIND- 23.11.67 PROD FINDUS SA D13 = IT 1047-875
Inhibition of microbial reduction of nitrates to nitrites - 15503R/10
- *FIPO 14.06.79 FISCHER & PORTER LTD D15 E36 *DE 3022-273
Chlorine di:oxide generator giving chlorine-free aq. soln. - 00299D/0
- FIRM 07.05.69 FIRMENICH SA B05 C03 D23 E15 (D13) = IT 1047-883
Unsaturated cycloaliphatic ketones - 82738R/44
- FISK- 03.05.79 FISKERITEK FORSKNIN D12 = DK 8001-909
Removal of fat, intestines etc. from fish - 84727C/48
- FISK- 03.05.79 FISKERITEK FORSKNIN D12 = NO 7901-481
Removal of fat, intestines etc. from fish - 84727C/48
- *FLUI- 15.06.73 FLUID POWER RES INC D15 J01 *US 4238-325
Ion exchange appts. for treating liq. - 00597D/01
- *FORM/ 29.05.79 FORMAN L C03 D13 *CS 7903-692
Whey-based feedstuff prodn. - D/01
- FORT- 13.06.79 VEB KOMB FORTSCHRIT C03 D13 = DE 3021-405
Dry forage prepn. - 80810C/46
- FRAU 28.12.77 FRAUNHOFER-GES FORD ANGE D15 J01 = US 4238-59
Silicic acid hetero-polycondensate prodn. - 52664B/29
- *FRAZ/ 19.07.79 FRAZIER SE D22 E13 *US 4238-483
Antimicrobial compsn. prodn. from natural flavanoid glycosid
00669D/01
- FRNG 24.02.78 FRINGS H CO GMBH KG D16 J01 = DS 2808-022
Ultrafiltration circuit with recirculation - 64839B/36
- FUJI 12.06.68 FUJISAWA PHARM KK B04 D16 = DS 1929-355
Antibiotic thiopeptin antibacterial - 41511F/00
- FUJI 31.08.71 FUJISAWA PHARM KK B04 D16 = IT 1047-896
Antibiotic fr-1923 - 16132U/12
- *GAGG- 11.06.79 GAGGENAU W HAUS & D11 *DE 2923-577
Air cooled flush fitting backing oven - 00069D/01
- GALL- 20.04.72 GALLAHER LTD D18 = IT 1047-920
Synthetic smoking material - 47111V/25
- GARU- 29.07.66 INST GARUNGS U GETR D16 #IT 1047-858
Suspensions clarification - 05809U/05
- *GBFO- 13.06.79 GBF GES BIOTECH FOR B04 D16 *DE 2924-006
Cultures of Myxococcus fulvus and its extracts - 00129D/01
- *GENE 11.05.79 GENERAL ELECTRIC CO D22 L02 *US 4237-559
Bone implant formed of high and low density ceramics - 00464D/01
- GENO 30.03.72 GENERAL FOODS CORP B05 D13 E19 = IT 1047-918
Dipeptide salts - 62766U/42
- *GENO 06.10.78 GENERAL FOODS CORP A11 D13 (A97) *US 4238-604
Acetylated crosslinked starch prepn. - 00728D/01
- *GENO 15.06.79 GENERAL FOODS CORP D13 (D16) *US 4238-514
Puffed Nato rice prepn. - 00682D/01
- *GETF- 21.04.79 GETFRESH FOODS LTD D13 *GB 2049-537
Formation of filled food products - 00360D/01
- GIVA 05.12.73 GIVAUDAN L & CIE SA D23 E14 = DS 2457-550
1,1,3,4,4,6-Hexamethyl-1,2,3,4 tetrahydronaphthalene prodn.
01885W/01
- GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = GB 2049-457
Methane and agricultural fertiliser sludge prodn. - 67763C/39
- GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = NO 8001-364
Methane and fertiliser sludge produced from animal farm effluen
67764C/39
- GIZA- 09.05.79 GIZA SPA C04 D16 E17 H06 (D15) = NO 8001-365
Methane and agricultural fertiliser sludge prodn. - 67763C/39
- GLUS/ 20.04.79 GLUSCENKO N B05 D16 E19 #CS 7902-755
Aminoacid fermentation producing microorganism process - 73577C/42
- *GRAM- 30.04.77 GRAMPEX PROTEIN LTD D12 *GB 1581-859
Appts. for continuous drying of press cake - 00329D/01
- *GROS/ 22.10.79 GROSSMANN J D18 *CS 7907-134
Shaving stand laying rollers drive - D/01

GE-07.04.79 HAGER & ELSASSER GM D15 = GB 2049-470
 Power station water saving system - 73795C/42
 ME/15.06.79 HAMELA P D11 *CS 7904-138
 Dietetic bakery prods. - D/01
 NO-16.06.77 HANORAH ITALIANA SP D21 = GB 1582-179
 Cosmetic complex for face or hair treatment - 02159B/02
 NU/15.06.79 HANULA P D13 *CS 7904-139
 Growth medium based on beer malt - D/01
 UN 15.03.78 HAUNI-WERKE KORBER KG D18 J01 = US 4237-778
 Compact filter rod for cigarettes - 71893B/40
 YB 20.03.79 HAYASHIBARA SEIBUTS D16 (D17) = GB 2049-701
 Fixed enzyme for prepn. of prod. from starch - 79863C/45
 JD/22.02.79 HEJDA Z D15 E14 *CS 7901-169
 Purificn. of effluent from nitrobenzene or nitrotoluene prodn. - D/01
 NK 01.10.73 HENKEL KG AUF AKTIEN D25 E12 = DS 2349-293
 Cleansers and detergents with disinfectant activity - 26084W/16
 NK 27.07.76 HENKEL KG AUF AKTIEN A97 D25 E16 (A25 D16) = GB 82-200
 Conc. liquid cleaning compsns. for washing contg. enzymes - 08288A/05
 NK 01.09.76 HENKEL KG AUF AKTIEN A96 B05 D21 E19 (A25) = GB 82-028
 Solns. of fat-soluble perfume oils or pharmaceuticals - 18009A/10
 NK 16.07.77 HENKEL KG AUF AKTIEN D18 E33 = CS 7804-664
 Additives for defatting and tanning in leather mfr. - 10088B/06
 NK 10.12.77 HENKEL KG AUF AKTIEN C03 D13 = CS 7808-160
 Animal feedstuffs giving high feed utilisation and wt. gain - 44050B/24
 RE/22.10.79 HEREIT F D15 *CS 7907-158
 Impurities elimination during water processing - D/01
 IT 09.03.77 HITACHI CONSTRUCT MACH D15 *J8 0047-926
 Device for filtering waste water - 00450D/01
 DUD 10.10.74 HOUDAILLE INDS INC D15 = IT 1047-612
 Waste water disinfected by injecting chlorine - 24462X/14
 DWA-21.02.78 HOWARD MACH LTD D14 *GB 2049-455
 Mixing and dispensing appts. for animal feed - 00348D/01
 MIN-08.11.78 H & R INC D22 *US 4237-912
 Cleaning system for inhalation therapy etc. tubes - 00504D/01
 IS/19.07.77 HRISTOV O B04 D16 #CS 7704-805
 Live attenuated mumps vaccine - 76561A/43
 TBL/28.02.80 HYBLER J D17 *CS 8001-352
 Sugar mixing and dissolving appts. - D/01
 LM/24.08.79 HYL MAR B C03 D13 *CS 7905-751
 Animal feedstuffs - D/01
 LM/24.08.79 HYL MAR B C03 D13 *CS 7905-752
 Farm animals feedstuff prodn. - D/01
 L 09.08.77 IMPERIAL CHEM INDS LTD D16 (D13) = US 4237-693
 Industrial aerobic fermentation - 11897B/07
 FI-25.08.75 INDUST FILTER CORP A97 D15 J01 M25 *US 4238-329
 Recovery of heavy metals from water contg. fluctuating concn. - D0600D/01
 FL 01.08.72 INT FLAVORS & FRAGR INC D13 E14 (D18 D21 D25 E13) = IT 47-923
 Acetals of 2- and 3-phenyl pentenals - 11334V/07
 FL 08.11.72 INT FLAVORS & FRAGR INC D13 = IT 1047-928
 Edible food seasoning with meat flavour - 38278V/21
 FL 20.10.78 INT FLAVORS & FRAGR INC B05 D13 E19 (D18 D21 D23) *US 88-344
 Aroma additives for solid or liq. detergents - 00610D/01
 CG 07.06.77 INST NAT RECH AGRON C03 D13 (D16) = US 4238-567
 Nutritional protein prodn. from Trichoderma album - 89622A/50
 EC 21.07.76 INST CERC CHIMICO-FARMAC D22 E24 *RO --67-432
 Crystal violet prepn. - D/01
 EE 02.10.74 INST NAT RECH CHIMIQUE A88 D15 J01 (A14) = IT 1047-
 Semi-permeable membranes of crosslinked, opt. substd. polyacrylamide
 28692X/16
 EE 02.10.74 INST NAT RECH CHIMIQUE A88 D15 J01 (A14) = IT 1047-
 Semi-permeable membranes from methylolated, polyacrylamide -
 8693X/16
 F 10.05.68 INST FRANCAIS DU PETROLE B04 C03 D16 = IT 1047-877
 Separation of micro-organisms from a fermentation - 08384H/00
 P 12.05.77 INST PASTEUR D22 = GB 1581-905
 Vapour disinfection using antiseptic soln., esp. of respirators - 67131A/38
 17.04.71 IST BIOCHIMICO ITALIANO B05 D16 = IT 1047-890
 Tetracycline prepn by fermentation - 55386T/35
 08.05.79 ITALFARMACO B04 D16 = NO 8001-248
 Reactor for enzyme reactions - 65987C/38
 JJ-06.04.78 INT MULTIFOODS CORP D11 *US 4237-763
 Molding muffins using rotating knife device - 00481D/01
 IC-03.05.79 INT OCTROOI MAATSC D14 S02 T06 *US 4238-432
 Coller and ring extrusion press - 00650D/01
 JJ/12.07.79 JIRU F C03 D13 *CS 7904-881
 Non-traditional materials conversion into feedstuffs - D/01

JOHJ 15.07.69 JOHNSON & JOHNSON A25 D22 (A12 A15 A96) = DS 2034-761
 Self-adhesive plaster - 07613S/04
 JOHJ 18.04.79 JOHNSON & JOHNSON A96 D22 #DE 2915-627
 Surgical drape with liquid collection bag - 75107B/41
 *JOHN-30.04.79 JOHNSON PRODUCTS CO A96 D21 *US 4237-910
 Stable, alkaline, no-base hair relaxer compsns. - 00503D/01
 JOHS 22.01.79 JOHNSON S C & SONS INC D25 E36 = US 4238-192
 Stable aq. hydrogen peroxide bleach compsn. - 57293C/33
 *JUDE-31.01.74 OFIC JUDETEAN GOSPO D15 E36 J04 S03 *RO --67-893
 Cyanide meter for water - D/01
 KACH-28.02.77 KACHIKU EISEI SHIKE B04 C03 D16 = J8 0047-612
 Live vaccine prepn. for treating bordetella bronchiseptica infections - 77244A/43
 KAIH-23.04.75 KAIHATSU KAGAKU KK A11 D23 (A97) = J8 0047-070
 Starch deriv. as gelling agent for fat - 93344X/50
 *KALA/21.06.77 KALAL J A96 B04 D22 J01 *CS 7704-091
 Haemo-compatible sorbents - D/01
 KALT-24.04.79 KALTENBACH & VOIGT D22 = GB 2049-428
 Sprayable medical or dental instrument sterilising mixt. - 79057C/45
 *KANS-20.04.79 KANSAS STATE UNIV R A97 D22 *US 4238-477
 Homogeneous resin-poly-iodide disinfectant - 00667D/01
 KAOS 25.02.75 KAO SOAP KK C03 D22 E16 = J8 0047-603
 Germicidal, disinfectant, antiseptic compsn - 66785X/36
 KAOS 20.04.79 KAO SOAP KK D25 = GB 2049-723
 High-foaming skin non-irritant alkaline cleansing compsns. - 81132C/46
 *KAOS 09.05.79 KAO SOAP KK A96 D22 (A35) *GB 2049-553
 Water absorbent embossed laminated sheet - 00362D/01
 KARL/07.10.74 KARLER A B04 D16 = IT 1047-683
 Mucoprotein prodn. - 69419X/37
 KARL/13.10.75 KARLSON EL D15 J01 #IT 1047-783
 Particulate material removal from fluid stream - 72326W/43
 KEMP/27.02.71 KEMPER K D11 = DS 2109-363
 Conveyor control system - 60023T/38
 KENT/03.05.79 KENT F M J D23 = DK 8001-892
 Multipart decorative candle - 83071C/47
 KIBU-18.03.77 KIBUN KK D12 = J8 0047-872
 Prepn. of fish paste food - 82885A/46
 *KING-16.05.79 KINGSDOWN MED CONSU D22 *GB 2049-620
 Cover bag to enclose ostomy bag - 00368D/01
 KIRI 27.03.79 KIRIN BREWERY KK D16 = GB 2049-426
 Rapid hop curing - 73850C/42
 *KOLL/15.06.79 KOLLROSS G D12 *DE 2924-059
 Automatic sausage skin gathering machine - 00134D/01
 *KOMO/16.01.80 KOMORAL D15 E19 *CS 8000-317
 Elimination of organic acids from aq. solns. - D/01
 KOPA-27.03.76 KOPALNIA WEGLA KAMI D15 = DS 2711-528
 Continuous dewatering of flocculated sludge with screen drum - 72776Y/41
 *KRAM/10.12.79 KRAMAR A D13 *CS 7908-575
 Protein biomass prodn. from beech bark hydrolysates - D/01
 KREU-24.10.74 KREUCOHA AG D13 = US 4238-516
 Tempering masses containing cocoa butter, such as chocolate - 34167X/19
 *KUCE/25.10.79 KUCERA J D16 *CS 7907-255
 Glucoso-oxidase sepn. - D/01
 *KULH/12.12.78 KULHANEK M D17 E13 *CS 7808-245
 D-glucose and D-fructose prepn. - D/01
 KURE 03.08.76 KUREHA KAGAKU KOGYO B04 D16 (D13 D17) = CS 7705-091
 Cultivating Basidiomycetes - 10256A/06
 *KURE 12.06.79 KUREHA KAGAKU KOGYO A11 D12 F01 (A97) *DE 3021-780
 Shaped collagen materials - 00280D/01
 *KURE 12.06.79 KUREHA KAGAKU KOGYO A11 D12 F01 (A97) *DE 3021-781
 Shaped collagen material prepn. - 00281D/01
 *KURT/15.06.79 KURTZ O D16 *DE 2924-175
 Beer brewing from hops, malt and water - 00153D/01
 *KUZM/29.10.79 KUZMOVA E D16 *CS 7907-319
 Bioproteins prepn. - D/01
 LAFO 28.04.78 LAB LAFON L A97 B07 D13 E24 #US 4238-518
 Prepn. of stable red dyestuff from beetroot - 49152Y/28
 LANG/03.11.78 LANGEN J C D12 = US 4237-581
 Compression of meat in double chambered apparatus - 36898C/21
 *LARI/27.11.78 LARISCH V D15 H03 *CS 7807-753
 Appts. eliminating oily cpds. from fluctuating surfaces - D/01
 LARS/08.05.79 LARSSON V K A96 D21 = GB 2049-424
 Skin-protective coating formation system - 84765C/48
 *LEOP/24.10.79 LEOPOLD J D16 *CS 7907-183
 Industrial strain of Aspergillus niger van Tieghem CCM-F-663 - D/01
 *LEOP/24.10.79 LEOPOLD J D16 *CS 7907-203
 Molasses substrate for citric fermentation - D/01
 LEPE 07.04.79 GRUPPO LEPETIT SPA B04 D16 = FI 8000-881
 Antibiotic A-16686 obtd. by culturing Actinoplanes strain - 73479C/42
 LERE= 21.03.79 LENG D REFRIG INST D15 = FI 8000-816
 Treating sewage on board ship - 73964C/42

LIBU/

- * LIBU/ 25.06.79 LIBURDY R P D16 J01 S03 X25 *US 4238-327
Liq. gel chromatography for sepg. molecules - 00599D/01
- * LIFE- 21.02.79 LIFE SAVERS INC D13 *US 4238-510
Sugarless coating for candy, chewing gum and pills - 00681D/01
- * LIFE- 01.08.79 LIFE SAVERS INC A96 B07 D13 *US 4238-475
Chewing gum contg. insoluble, particulate pharmaceuticals - 00666D/01
- LINM 24.04.79 LINDE AG D16 E17 J01 = BR 8002-484
Purificn. or sepn. of gases by pressure changes and adsorption - 81007C/46
- * LINM 05.06.79 LINDE AG D15 *DE 2922-719
Biological waste water purificn. - 00013D/01
- * LINM 05.06.79 LINDE AG D15 *DE 2922-761
Two/step biological waste water purificn. - 00015D/01
- * LINM 05.06.79 LINDE AG D15 *DE 2922-828
Biological waste water purificn. - 00021D/01
- LOTT 17.04.78 LOTTE KK D13 E23 = J8 0047-866
Blue chewing gum, coloured by phycocyanine - 88316B/49
- * LUKK/ 09.04.79 LUKKARINEN T D15 H03 *FI 7901-165
Oil sepn. from water surface - D/01

- MACK/ 08.11.68 MACKRLES D15 = IT 1047-880
Continuous water purification - 33823R/19
- MALA- 16.11.77 MALACO AG D22 E19 H01 M14 (H03) = US 4238-350
Corrosion inhibiting compsn. contg. amino carboxylic acid - 44493B/24
- * MATE/ 03.09.79 MATELOVA V B04 D16 *CS 7905-980
Penicillium chrysogenum CCM F-648 strain - D/01
- * MATE/ 21.12.79 MATELOVA V B04 D16 *CS 7909-206
Elimination of toxic effect of iron in penicillin biosynthesis - D/01
- * MATJ 16.06.76 MATSUSHITA REIKI KK D15 *J8 0047-931
Device for carbonated drinking water prodn. - 00452D/01
- MATS/ 24.02.78 MATSUBARA M B04 D13 = US 4238-479
Foodstuff with strengthening effect - 66547B/37
- MATT- 13.07.76 MATTHEY RUSTENBURG D25 M28 X25 = GB 1582-130
Recovering traces of platinum gp. metals from waste solns. - 06746A/04
- * MAYE/ 15.03.79 MAYER J D16 (D15) *CS 7901-723
Rocks filtration ability evaluation - D/01
- MCDO- 15.10.74 McDONALDS CORP D12 = IT 1047-794
Marinating chicken portions quickly before frying - 24483X/14
- MENG/ 20.03.76 MENGE W D11 = US 4238-512
Storable acid pre-doughs for baking bread etc. - 71988Y/40
- MERI 19.04.76 MERCK & CO INC B02 C02 D16 = CS 7702-465
Macrolide parasitocidal and pesticidal cpds. - 78836Y/44
- * MERK/ 13.06.79 MERKL A C03 D13 *DE 2924-002
Bird feed block e.g. bar or rod - 00128D/01
- MEYN/ 00.00.80 MEYN P D12 S02 #GB 2049-963
Weighing and grading fowls hanging from shackles - 02098C/02
- MEZO- 12.02.79 MEZOGAZDASAGI TERMELOSZO C03 D13 #CS 7900-937
Feedstuff, esp. feed concentrate prodn. - 60623C/35
- * MICA/ 11.01.79 MICAN P D13 *CS 7900-258
Biologically conserving bulky feeds - D/01
- * MINN 14.10.77 MINNESOTA MINING CO A96 D22 *US 4237-889
Diaper fastener with textured foil backing - 00501D/01
- MIRA- 23.03.79 MIRA LANZA SPA D25 E19 = FI 8000-526
Washing powder compsn. of low phosphate content - 55257C/32
- * MITO 29.03.77 MITSUBISHI HEAVY IND KK D15 *J8 0047-927
Filter press for treating waste water - 00451D/01
- * MITQ 21.00.74 MITSUBISHI ELECTRIC CORP D15 *J8 0047-923
Appts. for agglomerating insol. material in waste water - 00447D/01
- MIZA 18.11.75 MIZUSAWA KAGAKU KK A97 D25 = US 4238-346
Alkali alumino-silicate zeolite detergent builder - 38465Y/22
- MONS 19.07.66 MONSANTO CO D13 = IT 1047-862
Sweetening agents contg. maize starch - 63957R/36
- MONS 19.07.66 MONSANTO CO B04 D13 = IT 1047-863
Low calorie sweetener contg. a waxy starch hydrolysate - 30711F/00
- MORG 05.12.77 MORINAGA MILK KK B04 D16 #GB 1582-068
Bifidus powder contg. lactulose - 09345A/05
- MULL/ 24.03.76 MULLER H C03 D13 = US 4237-820
Feeding artificially grown fish - 72772Y/41

- NATT 20.05.68 NAT STARCH & CHEM CORP D11 E19 #IT 1047-874
Bakery product additives - 04168R/04
- NATT 14.04.72 NAT STARCH & CHEM CORP A96 D25 (A14) = IT 1047-919
Hair lacquers - 66534U/44
- NATT 12.03.79 NAT STARCH & CHEM CORP D13 = GB 2049-388
Pulverising fat-contg. foodstuff to free-flowing powder - 67991C/39
- NATY 18.10.74 NABISCO INC D13 = IT 1047-843
Textured vegetable proteinaceous flakes - 34323X/19
- * NEJE/ 18.09.79 NEJEDLY Z B02 D16 K08 S03 *CS 7906-286
Enzyme synthesis of radioactive adenosine - D/01
- NEST 27.04.77 SOC PROD NESTLE SA D13 = GB 1581-900
Milk food used esp. for premature infants - 76250A/43

- NEST 17.05.79 SOC PROD NESTLE SA A97 D13 E13 = GB 2049
Caffeine removal from oil solns. - 86634C/49
- NHYD 19.03.74 NORSK HYDRO A/S C03 D13 E33 = RO --65-
Clacium phosphates of animal feed quality - 52431W/32
- NIPC 26.12.75 NIPPON CHEM IND KK D15 E36 J01 = J8 0047-
Treatment of exhaust gas desulphurised waste liquor - 58451Y
- * NIPK 25.05.73 NIPPON KAYAKU KK D23 *J8 0047-078
Inhibiting smell of oil or fat during storage - 00421D/01
- * NIPQ 04.06.79 DAI NIPPON INSATSU D13 *DE 3008-313
Semi-processed, room temp. packed storable chip prepn. - 00
NIRO 25.09.70 NIRO ATOMIZER A/S D13 = DS 2147-153
Treatment of milk powder with lecithin - 23267T/15
- NISB 16.11.77 JAPAN TOBACCO & SALT PUB D22 = J8 0047-8
Sterilising plant growth medium by heating - 53266B/29
- * NISS 19.09.72 NISSHIN FLOUR MILL KK B04 C03 D16 *J8 0047-
Preventing infectious atrophic rhinitis of young pig - 00418D/0
- NISW 08.01.74 NISSHIN OIL MILLS KK B07 D21 E17 = J8 0047
Emulsifying synthetic oils prepn. - 76564W/46
- NMHB 04.05.79 NORDISCHER MASCHINE D12 #DK 7901-831
Fish filleting machine - 69556C/39
- * NOVA/ 12.09.79 NOVAK V D15 *CS 7906-173
Rapid water filters attachment - D/01
- NOVO 11.09.72 NOVO TERAPEUT LAB A/S A96 B04 D16 = IT 10
Solid phase enzyme preps - 21039V/12
- NOVO 11.09.72 NOVO TERAPEUT LAB A/S A96 B04 D16 = IT 10
Solid phase enzyme preps - 21039V/12
- NOVO 09.04.79 NOVO INDUSTRIA/S D16 (D13) = FI 8001-029
De-stabilisation of microbial rennin - 75331C/43
- NOVO 09.04.79 NOVO INDUSTRIA/S D16 (D13) = FI 8001-072
De-stabilisation of microbial rennin - 75330C/43
- * OCCI 17.05.78 OCCIDENTAL RES CORP D15 *US 4238-296
Desalination by flash evaporation - 00585D/01
- OILD- 04.05.76 OIL-DRI CORP AMERIC C03 D15 (D22) = GB 1582
Gypsum granules for absorption on liquids - 63110Y/36
- * OKAZ- 19.07.76 OKAZAKI KOGYO KK D15 *J8 0047-924
Muddy water treating appts. - 00448D/01
- * ONDE/ 10.12.79 ONDERKA Z D18 *CS 7908-569
Flat articles drying installation - D/01
- OREA 26.04.79 L'OREAL SA D21 E24 = BR 8002-575
Substd. meta-phenylene di:amine cpds. - 78918C/45
- OREA 26.04.79 L'OREAL SA D21 E24 = GB 2049-684
Substd. meta-phenylene di:amine cpds. - 78918C/45
- ORIY 25.10.76 ORIENTAL YEAST KK B02 D16 = J8 0047-878
Nicotinamide adenine di:nucleotide redn. with alcohol deh
44949A/25
- * ORLI/ 22.08.78 ORLITA A D18 *CS 7805-475
Pelt treatment of pigskin prodn. - D/01
- ORTH 20.03.79 ORTHO PHARM CORP B04 D16 S03 (S05) = FI 800
Mono:clonal antibody of IGG class - 77465C/44
- OSAG 15.04.78 OSAKA GAS KK D15 = GB 1581-989
Activated sludge treatment of sewage - 79282B/44
- * PACA/ 22.09.79 PACA J D16 J04 *CS 7906-407
Gas distributor for mass exchangers and fermentation appts. -
- * PALE/ 13.09.79 PALECKOVA F D16 *CS 7906-192
Brevibacterium sp AO 6/79 strain - D/01
- * PARR/ 17.05.79 PARR TK A92 D11 *GB 2049-604
Ready rolled pastry package - 00365D/01
- * PART- 13.01.77 INTR PARTIZANUL D18 X25 *RO --68-324
Safety control for animal skin processing - D/01
- * PASE 13.06.79 PASSAVANTW MICHELbacher D15 J04 S03 *DE
956
Determn. of light substances in waste water - 00125D/01
- PEDC- 22.02.78 PEDCO PROTEINS & EN A97 D12 = US 4238-515
Self-binding fibrous gluten for meat-like prods. - 65019B/36
- * PENI- 18.09.79 PENICILLIN ASSAYS B02 D13 *US 4238-521
Penicillin removal from contaminated milk - 00685D/01
- PERS 05.02.79 PERSONAL PRODUCTS CO A96 D22 = US 4237-591
Sanitary pad contg. perfume avoiding perfume migration - 86106
- * PETE/ 09.02.79 PETERS M F D15 E17 H06 *US 4238-337
Appts. for producing methane gas by fermenting organic v
00606D/01
- PETE/ 23.03.79 PETERSON A C D15 = GB 2049-461
Sedimentation device for clarifying waste water - 09065C/05
- PEUS/ 29.01.79 PEUSER M F X D15 J01 M11 = BR 7900-702
Effluent treatment of electroplating baths - 43314C/25
- PFIZ 23.12.71 PFIZER CORP D12 E13 = J8 0047-867
Isocitric acid lactone - anhydride - 43040U/31
- PFIZ 07.01.74 PFIZER INC B02 C02 D15 = IT 1047-758
Antibacterial cyano-2-aminocarbonyl quinoxaline 1,4-diox
47688W/29
- * PFIZ 29.10.79 PFIZER INC B05 D13 E14 (E16) *US 4238-392
Purificn. of L-aspartyl-L-phenylalanine alkyl ester sweete
00637D/01

- EL-22.11.75 INST PIELARIE INCALAMIN A82 D18 *RO --67-739
Coating pigskin holes - D/01
TT-02.12.70 PITTMANN MOORE CORP B04 C03 D16 = J8 0047-012
Immunizing vaccine prepn - 46944T/29
DDH/11.06.79 PODHORSKY M C03 D13 *CS 7904-042
Feedstuffs lowering chlorinated pesticides conc. in farm animals - D/01
OL-10.02.75 INST POLI IASI D15 *RO --66-936
Biological waste water purification - D/01
OT/27.03.79 POTTS JE A96 D22 (A23) = US 4238-522
Orthopaedic cast or splint, or bandage for applying cast - 64989B/36
ROC 30.07.70 PROCTER & GAMBLE CO D21 E33 = IT 1047-910
Anti-perspiration aerosols - 10391T/07
ROC 10.08.72 PROCTER & GAMBLE CO D13 E19 = IT 1047-924
Mixed polyol complete esters prodn - 13377V/08
ROC 10.08.72 PROCTER & GAMBLE CO D13 E19 = IT 1047-925
Mixed polyol complete esters prodn - 13378V/08
ROC 27.09.74 PROCTER & GAMBLE CO D25 E37 = IT 1047-609
Low phosphate dry granular washing agents - 29463X/16
ROC 27.08.76 PROCTER & GAMBLE CO D25 E19 F06 = GB 1582-039
Dry stable bleaching compsn. - 15919A/09
ROC 06.03.78 PROCTER & GAMBLE CO A97 D25 E19 = US 4238-373
Prodn. of intimate mixt. of N-based cationic surfactant - 68458B/38
ROC 28.04.78 PROCTER & GAMBLE CO A97 D12 E19 = GB 2049-390
Liq. crystalline food additive emulsion - 84541B/47
PROT=15.02.71 PROTEINS BIOSYNTH B04 C03 D16 H04 #IT 1047-886
Microbiological petroleum distillate de waxing - 23028T/15
PROT=31.03.71 PROTEINS BIOSYNTH C03 D16 H04 #IT 1047-888
Albumin-fat compsns prepn - 39283T/25
ALS 15.12.65 RALSTON PURINA CO D13 E36 (E34) = IT 1047-859
Artificial meat prods - 37991U/27
AYB 30.08.79 RAYBESTOS-MANHATTAN INC D23 F09 X25 *US 4238-304
Recovery of tall oil from acidified black liquor soap - 00588D/01
ECK 28.10.72 RECKITT & COLMAN PROD D21 = IT 1047-926
Shampoo compsn - 17391V/10
ENF/11.06.79 RENFTLE H D21 *DE 2923-615
Delaying flavouring and aromatiser activity in paste - 00074D/01
ETO 11.04.79 RJR ARCHER INC A97 D18 G03 (A81) = FI 8001-030
Tipping paper for air Ventilated cigarette - 79202C/45
HON 17.04.72 USINES CHIM RHONE P D23 E14 (D13) = IT 1047-899
Ortho-alkoxy-para-allylphenol prodn - 67801U/45
HON 24.01.77 RHONE-POULENC INDUSTRIES A97 D13 E23 (A12 D16) = J8 0047-060
Purificn. of aq. anthocyanin solns. - 55429A/31
CT 19.08.76 RICHTER GEDEON VEGY C03 D13 E19 = CS 7705-447
Blemish-preventing compsn. for apples, esp. with red skins - 14040A/08
CT 21.03.79 RICHTER GEDEON VEGY D12 (D15) = GB 2049-648
Removal of solids from waste liquids e.g. from slaughter houses - 72785C/41
HA/20.06.78 RIHACEK L D15 *CS 7804-052
Waste waters elimination - D/01
KV 16.04.79 RIKEN VITAMIN OIL KK D13 = GB 2049-720
Emulsifier prepn. for improving starch-contg. food quality - 79089C/45
PP/19.11.79 RIPPA F D15 J03 *CS 7907-864
Emulsion electro-coagulation and flocculation breaking appts. - D/01
MED-16.08.78 ROEDIGER W CO GMBH D15 = DS 2835-709
Sewage flotation system - 14933C/09
HR/14.04.77 ROHRER E D15 = GB 1581-985
Water and waste water purification - 84363A/47
QF 16.03.79 ROQUETTE FRERES SA B05 D13 E17 = FI 8000-807
Sorbitol compressed products e.g. tablets - 70061C/40
QF 15.06.79 ROQUETTE FRERES SA A97 D13 *DE 3021-775
Stable sugarless chewing-gum not causing dental caries - 00278D/01
RE 24.06.76 RORER W H INC A96 D21 #FI 7901-085
Aq. pharmaceutical detergent compsn. - 29676B/15
SS/16.03.79 ROSSI J C03 D13 = FI 7900-891
Neutralisation of alkaline lignocellulose-contg. material - 70028C/40
TE-15.06.79 ROTELMANN & CO D14 *DE 2924-098
Ball valve for perishable food - 00143D/01
A 03.04.79 SAGAMI RES CENTRE B05 D16 = GB 2049-703
Peptide prodn. in presence of immobilised protease - 73469C/42
A/08.06.79 SALA F D13 T05 = DE 3021-582
Indicator of transitory defrosting of frozen food etc. - 73516C/42
I-26.09.77 SANILOGICAL CORP D15 *US 4238-338
Sewage treatment appts. with interconnected chambers - 00607D/01
Y 11.05.79 SANKYO KK B03 D16 = GB 2049-664
Anacoline K prepd. by cultivation of Monascus strains - 69578C/40
K 08.08.77 SANYO KOKUSAKU PULP B03 D13 E13 = J8 0047-871
Purificn. of Stevia sweetening agents - 28866B/15
O 19.12.78 SCHERING AG B01 D16 = CS 7900-568
Egnone derivs. microbiological 11-beta-hydroxylation - 56512B/31
SCHD 19.12.78 SCHERING AG B01 D16 = CS 8000-372
17-Alpha-hydroxy-corticoid derivs. substd. by acetal or thio:acetal - 58435B/32
SCHD 19.12.78 SCHERING AG B01 D16 = CS 8000-373
17-Alpha-hydroxy-corticoid derivs. substd. by acetal or thio:acetal - 58435B/32
SCHD 19.12.78 SCHERING AG B01 D16 = CS 8000-374
17-Alpha-hydroxy-corticoid derivs. substd. by acetal or thio:acetal - 58435B/32
SCHD 19.12.78 SCHERING AG B01 D16 = CS 8000-375
17-Alpha-hydroxy-corticoid derivs. substd. by acetal or thio:acetal - 58435B/32
SCHD 19.12.78 SCHERING AG B01 D16 = CS 8000-376
17-Alpha-hydroxy-corticoid derivs. substd. by acetal or thio:acetal - 58435B/32
SCHU/17.08.77 SCHUBERT K D17 L02 = CS 7805-137
Plasticising ceramic masses with microbial polysaccharide - 89779A/50
SCHW-22.12.77 SCHWEIZER L & CO GM D18 = CS 7808-631
Continuous leather drying press - 49248B/27
SCMZ 17.04.78 SCM CORP D23 = GB 1581-910
Hydrogenating crude glyceride oils using nickel catalyst - 31554B/17
*SCMZ 01.08.78 SCM CORP D13 *US 4238-520
Low fat spread esp. margarine substitute - 00684D/01
SEAR 01.06.79 SEARLE G D & CO B04 D16 = DE 3020-528
Plasmids useful as vectors for eucaryotic DNA - 88368C/50
SEAR 31.03.80 SEARLE G D & CO B04 D16 = GB 2049-702
Synthetic influenza gene prodn. - 73458C/42
SELW-29.07.78 SELWIG & LANGE MASC D17 = GB 2049-724
Preliminary liming plant for raw sugar beet juice - 87781B/49
*SEPS-15.06.79 SEP SOMYCEL SA D16 *DE 2924-344
Spore-less Basidiomycetes strains prepn. - 00180D/01
SHEL 30.11.76 SHELL INT RES MIJ BV D25 E19 = CS 7707-850
Refining surface active agent streams - 38473A/22
SHEL 30.11.76 SHELL INT RES MIJ BV D25 E12 = CS 7707-851
Sec. mono:alkyl sulphuric acid salts, useful detergents - 38493A/22
SHIS 29.07.76 SHISEIDO KK D21 = J8 0047-607
Make/up cosmetic prepn. - 26138A/14
SIEI 17.08.68 SIEMENS AG D15 = IT 1047-879
Recovering sweet water from seawater or brine by - 11629R/08
SIEI 01.02.78 SIEMENS AG D15 E19 J04 S03 (S05) = US 4238-297
Automatic determ. of organic substances in water - 40684B/22
SIFR 06.09.72 SOC FR SILICATES SPEC D21 E36 G01 = IT 1047-945
Silicon oxide pigments used for toothpaste prodn - 22262V/12
*SIMP-11.12.78 SIMPLOT J R CO D13 *US 4238-517
Frozen fried chips which can be heated in oven or toaster - 00683D/01
*SOKO/26.02.79 SOKOLD D22 *CS 7901-301
Skin disinfectant - D/01
SPIE/18.04.77 ST-PIERRE R D13 = GB 1582-113
Appts. for mfr. of yoghurt, esp. in the home - 72762A/41
*SPIL/25.01.79 SPILKA V D15 *CS 7900-555
Aerobic processing of pig farm waste - D/01
SPOF 16.05.64 SPOFA SPOJENE FARM NP B04 D22 = IT 1047-856
Prodn of collagen foam - 31865F/00
STAHL/27.03.79 STAHLER T D15 = FI 8000-919
Sewage aeration basin - 86444C/49
STAL 17.09.74 STALEY A E MFG CO A11 D13 (A97) = IT 1047-707
Hydroxypropylated crosslinked starch derivs - 24890X/14
STAM 19.09.74 STAMICARBON BV A91 D15 E13 J01 = IT 1047-545
Use of polymeric flocculating agent - 24428X/14
STAM 09.05.79 STAMICARBON BV A41 C04 D15 E16 = NO 8001-366
Purification of urea-contg. effluent water - 85611C/48
*STAR-27.11.78 STARR INC D14 *US 4237-782
Vegetable washing scrubbing or peeling appts. - 00483D/01
STAU 18.12.78 STAUFFER CHEMICAL CO D13 = US 4238-519
Egg albumen extender - 46668C/27
*STEM-13.06.79 STEMMANN ZAHNTECH D21 L02 *DE 2923-862
Implant for anchoring magnetic holder in jaw bone - 00116D/01
*STII-13.01.77 INST STIINT PROTECT MUNC D18 X25 *RO --68-324
Safety control for animal skin processing - D/01
STOJ/23.12.77 STOJKOVIC L B04 D16 = US 4238-478
Hetero-vaccine for treatment of trichomonas syndrome - 47144B/26
STRI 09.04.79 SRI INTERNATIONAL D16 (D17) = FI 8001-137
Cellulase prodn. by Thielavia terrestris cultivation - 75619C/43
SUME 17.07.75 SUMITOMO ELEC IND KK A88 D15 J01 L03 (A14 A85 A96 J03) = US 4238-571
Vinylidene fluoride an tetrafluoroethylene copolymer membranes - 08023Y/05
SUMO 14.10.71 SUMITOMO CHEMICAL KK C02 D16 = J8 0047-007
Pesticide compsns - 24737U/18
SUSO 28.01.74 SUOMEN SOKERIOY D17 E13 = CS 7500-492
Crystallisation of fructose from aq. soln. - 52764W/32
TABATA/19.06.69 TABATA H D15 E37 = IT 1047-884
Pure water extraction from sea water - 49470S/30

TAKE/

- *TAKE/ 04.07.77 TAKEUCHI M D13 *J8 0047-869
Storage stable brine compsn. - 00445D/01
- *TAMC/ 17.09.79 TAMCHYNA J D16 J01 *CS 7906-243
Large vol. rectification appts. - D/01
- *TANA 13.06.79 TANABE SEIYAKU CO L A97 D16 E17 *DE 3022-063
Conc. ethanol prepn. by sugar fermentation - 00290D/01
- *TARA/ 22.09.79 TARANT J D13 *CS 7906-403
Non-alcoholic, non-fermented beer-like drink - D/01
- TECN- 03.10.75 TECNECO SPA D15 J01 = CS 7606-397
Sepn. of metallic mercury from solns. - 25588Y/15
- TEIJ 08.06.76 TEIJIN KK D23 E14 (E19) = DS 2726-056
Occlusion complexes of meta-cyclophan with trans terpenoid cpds. - 90553Y/51
- TEMC- 28.04.76 TEMCA CHEM UNION GM A96 D22 (A14) = DS 2618-613
Open cell acetalised polyvinyl alcohol foam bandage - 81356Y/46
- TENH/ 02.06.75 TENHUNEN LA C03 D13 = CS 7603-578
Handling mechanism for a succulent food bale - 61579X/33
- *TENT/ 13.07.73 TENTA T L B05 D21 *IT 1047-922
Topical compsn. eliminating skin blemishes - D/01
- TERU- 28.03.79 TERUMO CORP D22 = GB 2049-471
Artificial organ esp. kidney, liver etc. - 56944C/33
- TETR 07.10.76 TETRA PAK INT AB D22 = GB 1582-060
Sterilising objects, esp. tape for beverage, e.g. milk, packaging - 29060A/16
- TEXC 26.07.68 TEXACO BELGIUM SA C03 D16 = IT 1047-878
Yeast prodn - 06864R/05
- *THIR- 22.11.75 13 DECEMBRIE INTR A82 D18 *RO --67-739
Coating pigskin holes - D/01
- THOM 12.10.74 THOMAE K GMBH A97 D25 = IT 1047-535
Dye stain-removing handwashing paste - 32204X/18
- *THOR- 14.05.79 THORN CASCADE CO LT D15 *GB 2049-454
Device for domestic aerated beverage prepn. - 00347D/01
- *TIDW- 06.10.78 TIDWELL CONS D15 *US 4238-333
Separator for removing oil from waste water - 00602D/01
- *TIRI/ 30.07.79 TIRINO A C A32 D22 (A96) *US 4238-189
Casting unitary tooth die and mounting pin - 00536D/01
- TOAD- 31.08.77 TOA PENPA KOGYO KK D15 E36 J04 S03 = J8 0047-343
Removing sulphur ions from liq. sample e.g. river water - 34119B/18
- TORA 26.03.76 TORAY IND INC D13 E12 = J8 0047-623
Substd. cyclopentenone alkali metal salt prepn. - 80358Y/45
- TORA 27.04.76 TORAY IND INC A91 D13 E16 = J8 0047-624
Metal removal from aminoacid prods. - 81494Y/46
- TOWN 25.05.79 TOWNSEND ENG CO D12 = GB 2049-392
Injecting fluid esp. brine into meat and fish for curing - 69605C/40
- TOYJ 03.04.79 TOYO SODA MFG KK B05 D16 = GB 2049-703
Di:peptide prodn. in presence of immobilised protease - 73469C/42
- *TRUB/ 27.10.78 TRUBACK D15 J01 *CS 7806-995
Complex processing of difficult to decompose emulsions - D/01
- TRUM- 09.03.79 TRUMARK INC D12 (D16) = US 4238-513
Meat emulsion fermentation in dry or semi-dry sausage mfr. - 66440C/38
- TSZE 05.08.77 TATABANYAI SZENBANYAK D15 #GB 1582-017
Purifying dung water from cattle stables - 57918Y/33
- TURO- 16.03.79 TUROS-FOODPROCESS A D13 = FI 8000-776
Prepn. of crumb prods. - 71550C/40
- UGIN 29.03.72 PROD CHIM UGINE KUH A96 D21 (A14) = IT 1047-939
Film-forming copolymer - for hair - 62177U/42
- UGIN 24.04.79 PROD CHIM UGINE KUHLMANN D25 E33 = BR 8002-468
Semi-continuous prodn. of zeolite type-A - 77063C/44
- UNIC 16.11.70 UNION CARBIDE CORP D15 = DE 2167-274
Aq effluent treatment - 33849T/21
- UNIC 28.12.76 UNION CARBIDE CORP A96 D22 (A18 A23) = DS 2758-216
Material for orthopaedic casts prodn. - 48191A/27
- UNIC 12.04.79 UNION CARBIDE CORP D12 #FI 7901-224
Shirred sausage casing - 61398B/33
- *UNIL 29.06.71 LEVER BROTHERS CO A97 D25 E35 (E19) *US 4238-531
Additive compsns. for tumbler-dryers - 00692D/01
- UNIL 14.07.76 UNILEVER NV D12 = GB 1582-137
Meat deboning process and machine - 04174A/03
- UNIL 27.03.79 UNILEVER NV A96 D21 E19 = FI 8000-862
Aq. shampoo providing good conditioning effects - 83027C/47
- UNIL 06.04.79 UNILEVER NV D25 E11 = FI 8001-003
Bleaching compsns. contg. peroxy cpd. and activator - 75321C/43
- *UNTC 04.04.74 ECODYNE CORP A88 D15 J01 *US 4238-334
Removing impurities from liq. streams using filter bed - 00603D/01
- UNTC 18.10.74 ECODYNE CORP D15 = IT 1047-830
Centre post water clarifier apparatus - 33793X/18
- UNVO 02.10.74 UOP INC D22 E17 = IT 1047-618
Solid perfumed compsns. with regulatable evapn. rates - 26320X/14
- *UNVO 08.03.77 UOP INC D15 *US 4237-618
Mechanical dewatering of sludge - 00470D/01
- UNVO 15.03.79 UOP INC D15 = GB 2049-460
Dewatering reclarification sludge - 68072C/39
- *UNVO 29.05.79 UOP INC D17 *US 4238-243
Sepn. of components in aq. mixtures - 00563D/01
- *UNVO 15.06.79 UOP INC A97 D17 J01 *DE 3022-008
Selective adsorption of components from an aq. soln. - 00277Y/41
- UYCU- 27.03.76 UNIV MARII CURIE-SKLODOW D15 = DS 271
Continuous dewatering of flocculated sludge with screw - 72776Y/41
- *UYDE- 15.06.77 UNIV OF DELAWARE D13 (D16) *US 4238-566
Milk xanthine oxidase-active enzyme concentrate - 00706D/41
- *UYST- 17.06.76 UNIV OF STRATHCLYDE B04 D16 *GB 1581-83
Cultivation of filamentous fungi - 00326D/01
- VENA- 22.03.79 VER NAHRUNGSMITTELI D11 = FI 8000-793
Ripening yeast for bread prod. - 70036C/40
- *VERS/ 09.09.75 VERSINO C D15 *IT 1047-984
Aq. effluents purificn. appts. - D/01
- VIDR- 25.11.75 VIDRA INTR BLANARIE D23 = RO --66-047
Lanolin recovery from skin wash waters - 38406Y/22
- *VIES- 11.06.79 VIESSMANN WERKE KG D15 *DE 2923-576
Self cleaning filter, esp. for drinking water - 00068D/01
- WADL 20.12.74 WADLEY RES INST BLOOD BK A96 D16 S03 S
1047-704
Microbial pathogen isolation from blood sample - 07193X/04
- WALD- 14.12.76 WALDNER H & CO GMBH D13 = DS 2656-659
Cheese press with rotary cage - 44284A/25
- WARN 17.05.79 WARNER-LAMBERT CO A97 D13 #GB 2049-705
Prepn. of chewing gum base compsns. - 82842B/46
- *WEIS/ 08.03.79 WEISSOVA V B04 D13 *CS 7901-567
Processing of inulin-contg. foods - D/01
- WHIT/ 18.02.76 WHITE MJE A96 D21 = US 4237-911
Dental prod. for oral hygiene - 63306Y/36
- *ZENK- 19.09.72 ZENKOKU NOGYO KUMIAI REN B04 C03 D16 *J
011
Preventing infectious atrophic rhinitis of young pig - 00418D/01

F	BD	CH -521-298 T26	43164-T D	54165-U D	13377-V DE	47111-V D	IT 1032-330 B39	FR 2289-132 X36
	Q00	CH -528-470 T50	NL 7116-512 T27	BE -797-545 U37	BE -803-399 V08	ZA 7302-525 V25	RO --65-918 D01	PT --64-434 X41
	Q01	CH -528-225 T50	DE 2162-326 T29	DE 2215-212 U43	NL 7311-119 V09	J4 9085-300 V42		ZA 7506-014 Y19
	Q01	GB 1305-621 U06	FR 2118-105 T46	J4 9006-101 V12	DE 2340-324 V09	US 3943-941 X13	52764-W DE	CH -593-030 A01
	Q01	DE 2065-323 U14	GB 1321-776 U26	GB 1377-471 V51	FR 2195-614 V19	CA -994-200 X33	DE 2502-558 W32	GB 1527-735 A41
	D01	DE 2065-322 U15	CH -548-740 V26	AT 7302-798 W15	US 3808-245 V19	CH -583-005 Y02	NL 7417-006 W33	IT 1047-721 D01
		DE 2065-324 U15	DS 2162-326 V50	DS 2215-212 Y46	J4 9132-010 W08	US 4044-777 Y36	SE 7500-717 W38	
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		CH -536-603 U29	J7 5022-102 W34	IT 1045-828 C29	US RE28-728 X11		DK 7500-248 W44	
		CH -536-604 U29	NL -157-782 A39	J8 0047-080 D01	CA 1020-571 Y47		FI 7500-158 W44	
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	D01	CH -539-682 U44	GB 1323-842 U29	NL 7303-921 U42	NL 7311-121 V09	DE 2404-958 V35		DE 2537-013 X27
		US 3928-456 X01+	CA -954-792 V40	FR 2178-347 V02	FR 2195-615 V19	FI 7400-283 V45		BR 7504-345 X30
		US 3931-326 X03+	CA -999-523 X48	GB 1432-012 X16	US 3809-712 V20	FR 2215-943 V48		AT 7500-570 A13
		DS 2022-216 X28+	J8 0047-012 D01	IT 1047-939 D01	DE 2340-235 V29	PT --61-245 W08		CH -596-318 A15
		US 3975-310 X35+			J4 9132-011 W08	AT 7400-768 W23		CA 1030-533 A20
		DS 2065-322 B30+	55386-T BD	62766-U BDE	GB 1408-974 W41	DD -112-441 W24		IT 1026-412 A49
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S		J8 0003-328 C08+	CA -989-756 X24	DE 2315-646 U43	CA 1021-795 Y50	GB 1457-796 X50		CS 7500-492 D01
		US 4187-863 C08+	IT 1047-890 D01	FR 2182-921 V06+	IT 1047-925 D01	IL --44-065 Y16		59038-W DJ
		NL -163-211 C13+	60023-T D	J4 9013-371 V15+	17383-V AD	CH -589-140 Y29		DE 2409-269 W36
		US 4226-892 C43+	NL 7202-477 T38	GB 1431-057 X15+	BE -806-519 V10+	CA 1016-483 Y37		NL 7501-830 W37
		IT 1047-883 D01+	DE 2109-363 T39	US 4029-701 Y25	NL 7314-587 V19+	SU -539-538 A03		SE 7501-992 W42
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			GB 1386-125 W10	CA 1028-195 A14	FR 2204-369 V35+	RO --64-564 D01		DS 2409-269 X06
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				BE -799-519 U43	IL --43-475 X23+	US 3856-875 W01		DE 2412-801 W39
				NL 7306-828 U49	SU -508-160 X52+	BE -822-990 W25		BE -826-737 W40
				DE 2223-790 U49	CA 1011-986 Y26+	NL 7415-867 W25		NL 7502-665 W40
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				CA -982-713 X07		CH -601-144 A28		HU T013-706 Y37
				IL --42-272 X23		IT 1025-605 A46		GB 1496-263 A01
				DS 2223-790 X36		DS 2457-550 D01		AT 7501-669 A31
				HU T017-595 C07				CA 1058-003 B32
				RO --65-488 D01				SU -680-616 C16
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								CS 7501-241 D01
664-R	CD			66534-U AD	21039-V ABD	21382-W ADEJ		24462-X D
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	R26			DE 2317-484 U45	NL 7312-525 V13+	FR 2243-720 W25+		NL 7511-951 X18+
	R36			FR 2180-006 V03	NL 7312-524 V13+	DK 7404-863 W29+		DE 2545-101 X18+
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				NL -156-916 A26	FR 2198-953 V23+	J7 8022-555 A31		FR 2287-420 X30+
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	R08			NL 7305-312 U45	GB 1444-539 X32+	AT 7407-971 X40+		NL 7504-362 W44
	R36			BE -798-294 U45	AT 7307-816 Y22+	AT 7407-971 X40+		SE 7404-991 W49
	S39			FR 2180-846 V04	AT 7307-815 Y22+	CA 1022-528 A01+		NO 7501-041 W50
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	T29			GB 1402-975 W33	CA 1011-671 Y25+	DS 2444-947 D01+		DK 7501-487 X05
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								IT 1047-794 D01
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	R22							BE -833-491 X14
	R20							NL 7510-906 X14
	R47							US 3951-947 X18+
	S27							FR 2285-401 X27
	S34							J5 1076-375 X33
	S46							CA 1014-553 Y32+
	Y22							GB 1517-395 A28
	D01							IT 1047-707 D01
57-R	D							26320-X DE
	R36							US 3945-950 X14
	D01+							DE 2542-937 X16
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								GB 1517-967 A29
								DS 2542-937 B33
								IT 1047-618 D01
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	R44+							BE -833-837 X15
	R45							NL 7510-251 X16
	R46							SE 7507-897 X20
	S16							NO 7502-749 X21
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	S51							FR 2286-111 X28+
	S51							DE 2536-506 X35
	S51							AT 7506-595 Y05
	S51							GB 1511-876 A21

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FR 2289-131 X36	30354-X AD	CA 1047-446 B07+	SE 7613-115 Y27	FR 2347-186 A05	DE 2731-449 A04	DE 2737-502 A09+	
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US 3995-638 X51	SE 7511-166 X21	BE -838-720 X36	RO -66-047 D01	US 4106-404 B08	US 4137-605 B07	AT 7705-969 A31+	
US 3995-637 X51	J5 1063-885 X29	DE 2606-519 X37		CH -609-879 B16	AT 7704-995 C05	DD -132-563 A50+	
US 4014-338 Y14	DK 7504-498 X29	J5 1098-324 X42	38465-Y AD	CS 7702-188 D01	CA 1085-675 C41	ZA 7705-038 B18	
ZA 7506-013 Y19	FR 2287-483 X30	BR 7601-166 X45	DE 2652-409 Y22+		GB 1582-137 D01	GB 1552-277 B37+	
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			US 4102-977 A44+	NO 7701-211 Y49	GB 1581-841 D01+	DE 2737-865 A10	
28298-X BD	30361-X DE	69419-X BD	J8 0018-479 C24	DK 7701-490 A03		NL 7709-438 A11	
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NL 7511-333 X16	BE -834-312 X17	CA 1073-354 C13	GB 1571-004 C28	J5 2151-197 A05	DE 2731-698 A04	FR 2362-923 A21	
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ZA 7505-840 X37	DS 2448-008 Y32	DE 2521-846 X49	FR 2323-726 Y24	IL -51-854 C19	08288-A ADE	BE -858-273 A10	
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